

Jose Rodriguez's Full Publications List: Over 350 publications

1. "A Quantum-Chemical Study of the Active Sites for Cyclohexene Oxidation on CoY Zeolites", J.A. Rodriguez, E. Pietri, M.R. de Goldwasser, and A.J. Hernandez, Proceedings of the First French-Venezuelean Meeting of Catalysis, Universidad Central de Venezuela, Caracas, Venezuela, 1 (1983) 289-297.
2. "Quantum-Chemical Studies of the Effects of Electron-Transferring Ligands upon CO Chemisorption on Cu(100)", J.A. Rodriguez and C.T. Campbell, *J. Phys. Chem.*, 91 (1987) 2161-2171.
3. "Quantum-Chemical Studies of Formate on Cu(100) and Cu(110)", J.A. Rodriguez and C.T. Campbell, *Surf. Sci.* 183 (1987) 449-468.
4. "Quantum-Chemical Studies of CN on Copper Surfaces", J.A. Rodriguez and C.T. Campbell, *Surf. Sci.*, 185 (1987) 299-318.
5. "A Quantum-Chemical Study of ZnO, Cu/ZnO, Cu₂O, and CuO Clusters and CO Chemisorption on ZnO(0001), CuZnO(0001), and Cu/ZnO(0001) Surfaces", J.A. Rodriguez and C.T. Campbell, *J. Phys. Chem.*, 91 (1987) 6648-6658.
6. "A Quantum-Chemical Study of the Chemisorption of Ammonia, Pyridine, Formaldehyde, Formate and Methoxy on ZnO(0001)", J.A. Rodriguez and C.T. Campbell, *Surf. Sci.*, 194 (1988) 475-504.
7. "A Quantum-Chemical Study of the Chemisorption of Water, Formaldehyde and Ammonia on Copper Surfaces and Water on ZnO(0001)", J.A. Rodriguez and C.T. Campbell, *Surf. Sci.*, 197 (1988) 567-593.
8. "A New Method for Analysis of Reactive Adsorbed Intermediates: Bismuth Postdosing in Thermal Desorption Mass Spectroscopy", C.T. Campbell, J.A. Rodriguez, F.C. Henn, J.M. Campbell, P.J. Dalton and S.G. Seimanides, *J. Chem. Phys.*, 88 (1988) 6585-6593.
9. "A Quantum-Chemical Study of the Adsorption of CO₂ and OH on Cu and ZnO Surfaces and OH on Pt Surfaces", J.A. Rodriguez, *Langmuir*, 4 (1988) 1006-1020.
10. "Interactions of Simple Molecules on Copper, Platinum, Silver and Zinc-Oxide Surfaces", J.A. Rodriguez, PhD Thesis, Indiana University, November 1988 (Univ Microfilms Inc., Ann Arbor, Michigan 48106).
11. "Probing Ensemble Effects in Surface Reactions: I. Site-Size Requirements for the Dehydrogenation of Cyclic Hydrocarbons on Pt(111) Revealed by Bi Site Blocking", C.T. Campbell, J.M. Campbell, P.J. Dalton, F.C. Henn, J.A. Rodriguez and S.G. Seimanides, *J. Phys. Chem.*, 93 (1989) 806-814.

12. "Probing Ensemble Effects in Surface Reactions: III. Cyclohexane Adsorption on Clean and Bismuth Covered Pt(111)", J.A. Rodriguez and C.T. Campbell, *J. Phys. Chem.*, 93 (1989) 826-835.
13. "The Chemisorption of Ethylene Epoxide and Carbonate on Silver: A Quantum-Chemical Study" J.A. Rodriguez and C.T. Campbell, *Surf. Sci.*, 206 (1988) 426-450.
14. "Cyclohexene Adsorption and Reactions on Clean and Bismuth Covered Pt(111)", J.A. Rodriguez and C.T. Campbell, *J. Catalysis*, 115 (1989) 500-520.
15. "A New Method for Analysis of Reactive Adsorbed Intermediates", C.T. Campbell, J.A. Rodriguez, F.C. Henn and J.M. Campbell, *J. Vac. Sci. Technol.* A7 (1989) 2207-2208.
16. "Chemisorption Studies on Cs/Cu(110): Model Studies of Cesium Promoters on Copper-Based Catalysts", J.A. Rodriguez, W.D. Clendening, J.M. Campbell, W. Min and C.T. Campbell, *J. Vac. Sci. Technol.* A7 (1989) 2118-2120.
17. "Adsorption of CO and CO₂ on Clean and Cesium-Covered Cu(110)", J.A. Rodriguez, W.D. Clendening and C.T. Campbell, *J. Phys. Chem.*, 93 (1989) 5238-5248.
18. "The Chemisorption and Coadsorption of Water and Oxygen on Cs-Dosed Cu(110)", W.D. Clendening, J.A. Rodriguez, J.M. Campbell and C.T. Campbell, *Surf. Sci.*, 216 (1989) 429-461.
19. "The Adsorption of Methyl, Acetylide, Chlorine and Phosphorus Trifluoride on Zinc Oxide: A Quantum-Chemical Study", J.A. Rodriguez, *Surf. Sci.*, 222 (1989) 383-403.
20. "Does CO₂ Dissociatively Adsorb on Cu Surfaces?" J. Nakamura, J.A. Rodriguez, and C.T. Campbell, *J. Phys.: Condens. Matter* 1 (1989) SB149-SB160.
21. "The Adsorption of Nitric Oxide, Pyridine and Sulfur Dioxide on Silver: A Quantum-Chemical Study", J.A. Rodriguez, *Surf. Sci.*, 226 (1990) 101-118.
22. "The Adsorption of Nitrogen Dioxide, Nitrate and Sulfate on Ag(110): A Quantum-Chemical Study", J.A. Rodriguez, *Surf. Sci.*, 230 (1990) 335-349.
23. "Dissociative Adsorption and Hydrogenolysis of Ethane over Clean and Ni Covered Pt(111)", J.A. Rodriguez and D.W. Goodman, *J. Phys. Chem.*, 94 (1990) 5342-5347.
24. "The Adsorption of Pyrazine, Hydrogen Sulfide and Thiophene on Copper: A Quantum Chemical Study", J.A. Rodriguez, *Surf. Sci.*, 234 (1990) 421-438.
25. "Adsorption and Reaction of HCOOH on Doped Cu(110): Coadsorption with Cesium, Oxygen, and Cs_a + O_a", F.C. Henn, J.A. Rodriguez and C.T. Campbell, *Surf. Sci.*, 236 (1990) 282-312.

26. "The Interaction of Ultrathin Films of Ni and Pd with W(110): An XPS Study" R.A. Campbell, J.A. Rodriguez and D.W. Goodman, *Surf. Sci.*, 240 (1990) 71-80.
27. "Electronic Interactions in Bimetallic Systems: An XPS Study", J.A. Rodriguez, R.A. Campbell and D.W. Goodman, *J. Phys. Chem.*, 94 (1990) 6936-6939.
28. "Catalytic Activation of CO over Single Crystals", J.A. Rodriguez and D.W. Goodman, chapter III in: "New Trends in CO Activation", L. Guczi, editor (Elsevier, Amsterdam, 1991).
29. "The Interaction of Ultrathin Films of Cu with Rh(100) and Ru(0001): An XPS Study", J.A. Rodriguez, R.A. Campbell and D.W. Goodman, *J. Phys. Chem.*, 95 (1991) 2477-2483.
30. "The Adsorption of PF₃, OH, SH and CH₃ on Silver: A Quantum-Chemical Study", J.A. Rodriguez, *Langmuir*, 7 (1991) 1206-1214.
31. "Adsorption of CO, H₂, O₂ and CO₂ on Clean and Cu-covered Re(0001): An XPS Study", J.A. Rodriguez, R.A. Campbell and D.W. Goodman, *Surf. Sci.*, 244 (1991) 211-220.
32. "An X-Ray Photoelectron Spectroscopic Study of the Electronic Properties of Ultra-Thin Ni Films on Ru(0001) and Mo(110)", R.A. Campbell, J.A. Rodriguez and D.W. Goodman, *Surf. Sci.*, 256 (1991) 272-280.
33. "Electronic Interactions in Bimetallic Systems: Core-Level Binding Energy Shifts", J.A. Rodriguez, R.A. Campbell and D.W. Goodman, *J. Vac. Sci. Technol. A*, 9 (1991) 1698-1702.
34. "Surface Science Studies of the Electronic and Chemical Properties of Bimetallic Systems", J.A. Rodriguez and D.W. Goodman, *J. Phys. Chem.*, 95 (1991) 4196-4206 (**invited**).
35. "The Effects of CO, H, H₂O, NH₃, CH₃OH and C₂H₄ on the Electronic Properties of Ultrathin Cu Films Supported on Ru(0001): An XPS Study", J.A. Rodriguez, R.A. Campbell, J.S. Corneille and D.W. Goodman, *Chem. Phys. Lett.*, 180 (1991) 139-144.
36. "High-Pressure Catalytic Reactions over Single-Crystal Metal Surfaces", J.A. Rodriguez and D.W. Goodman, *Surf. Sci. Reports* 14 (1991) 1-108 (**invited**).
37. "Electron Donor-Electron Acceptor Interactions in Bimetallic Surfaces: Theory and XPS Studies" J.A. Rodriguez, R.A. Campbell and D.W. Goodman, *J. Phys. Chem.*, 95 (1991) 5716-5719.
38. "Molecular Precursors to Boron Nitride Thin Films: I. Adsorption of Diborane on Ru(0001), NH₃/Ru(0001) and O/Ru(0001) Surfaces", J.A. Rodriguez, C.M. Truong, J.S. Corneille and D.W. Goodman, *J. Phys. Chem.*, 96 (1992) 334-341.

39. "The Chemical and Electronic Properties of Ultrathin Metal Films: the Pd/Re(0001) and Pd/Ru(0001) Systems", R.A. Campbell, J.A. Rodriguez, and D.W. Goodman, Phys. Rev. B, 46 (1992) 7077-7087.
40. "Molecular Precursors to Boron Nitride Thin Films: II. Coadsorption and Reaction Diborane and Hydrazine on Ru(0001)", C.M. Truong, J.A. Rodriguez, and D.W. Goodman, J. Phys. Chem., 96 (1992) 341-347.
41. "Electronic and Chemical Interactions between Boron and Carbon Monoxide on Ru(0001): A TDS, XPS and FT-IRAS Study", J.A. Rodriguez, C.M. Truong, W.K. Kuhn and D.W. Goodman, J. Chem. Phys., 96 (1992) 740-747.
42. "Electron Donor - Electron Acceptor Interactions in Surface Metal-Metal Bonds: the Cu/Re(0001) and Pd/Re(0001) Systems", J.A. Rodriguez, R.A. Campbell and D.W. Goodman, J. Vac. Sci. Technol. A, 10 (1992) 2540-2545.
43. "Synthesis of Boron Nitride Ultrathin Films: The Bonding and Chemistry of Ammonia and Hydrazine on Ru(0001) and B/Ru(0001) Surfaces", J.A. Rodriguez, C.M. Truong and D.W. Goodman, J. Vac. Sci. Technol. A, 10 (1992) 955-959.
44. "FT-IRAS Studies of Ammonia on Ru(0001)", J.A. Rodriguez, W.K. Kuhn, C.M. Truong and D.W. Goodman, Surf. Sci., 271 (1992) 333-339.
45. "Infrared Vibrational Studies of CO Adsorption on Cu/Pt(111) and CuPt(111) Surfaces", J.A. Rodriguez, C.M. Truong and D.W. Goodman, J. Chem. Phys., 96 (1992) 7814-7825.
46. "The Bonding of Acetate, Methoxy, Thiomethoxy and Pyridine to Cu surfaces: A Molecular Orbital Study" J.A. Rodriguez, Surf. Sci., 273 (1992) 385-404.
47. "FT-IRAS Studies of CO Adsorbed on Ag/Pt(111): Anomalous Behavior of Vibrational Cross-Sections" J.A. Rodriguez, C.M. Truong and D.W. Goodman, Surf. Sci., 271 (1992) L331-L337.
48. "CO Adsorption Isotherms on Cu(100) at Elevated Pressures and Temperatures using Infrared Reflection Absorption Spectroscopy" C.M. Truong, J.A. Rodriguez and D.W. Goodman, Surf. Sci., 271 (1992) L385-L391.
49. "The Nature of the Metal-Metal Bond in Bimetallic Surfaces" J.A. Rodriguez and D.W. Goodman, Science, 257 (1992) 897-903 (**invited**).
50. "Metal-Metal Bonding on Surfaces: Zn-Au on Ru(001)" J.A. Rodriguez and J. Hrbek, J. Chem. Phys., 97 (1992) 9427-9439.
51. "Bonding and Decomposition of Thiophene, Sulfhydryl, Thiomethoxy and Phenyl Thiolate on Mo Surfaces" J.A. Rodriguez, Surf. Sci., 278 (1992) 326-338.

52. "Electronic and Chemical Properties of Li-Au and Cs-Au Films on Ru(001)" J.A. Rodriguez, J. Hrbek, M. Kuhn and T.K. Sham, *J. Vac. Sci. Technol. A*, 11 (1993) 2029-2033.
53. "Photoemission Studies of Zinc-Noble Metal Alloys: Zn-Cu, Zn-Ag and Zn-Au Films on Ru(001)" J.A. Rodriguez and J. Hrbek, *J. Vac. Sci. Technol. A*, 11 (1993) 1998-2002.
54. "The Chemical Properties of Bimetallic Surfaces: Bonding between CO and Zn on Ru(001)", J.A. Rodriguez, *Surf. Sci.* 289 (1993) L584-L590.
55. "The Interaction of O₂ with Li-Au and Cs-Au Films: A Photoemission and Thermal Desorption Study" J.A. Rodriguez, J. Hrbek, M. Kuhn and T.K. Sham, *J. Phys. Chem.* 97 (1993) 4737-4744.
56. "The Chemical Properties of Bimetallic Surfaces: The Reaction of O₂ and NO₂ with Zn on Ru(001)" J.A. Rodriguez, *J. Phys. Chem.* 97 (1993) 6509-6517.
57. "Metal-Metal Bonds in Bimetallic Surfaces", J.A. Rodriguez and D.W. Goodman, *Science* 260 (1993) 1527-1528.
58. "Photoemission and Thermal Desorption Studies of Cs-Au and Li-Au Films on Ru(001)" J.A. Rodriguez, J. Hrbek, Y.W. Yang, M. Kuhn and T.K. Sham, *Surf. Sci.* 293 (1993) 260-274.
59. "Metal-Metal Bonding on Surfaces: Electronic and Chemical Properties of Ag on Ru(001)" J.A. Rodriguez, *Surf. Sci.* 296 (1993) 149-163.
60. "Oxidation of Cesium Multilayers", J. Hrbek, Y.W. Yang and J.A. Rodriguez, *Surf. Sci.* 296 (1993) 164-170.
61. "Metal-Metal Bonding on Surfaces: Molecular Orbital Study of Pd/Ti(001) and Pd/Ru(001)" J.A. Rodriguez, *Surf. Sci.* 303 (1994) 366-376.
62. "Electronic and Chemical Properties of Silver-Lithium Alloy Films: The Ag-Li, O₂/Ag-Li and CO/Ag-Li Systems" J.A. Rodriguez and J. Hrbek, *J. Phys. Chem.* 98 (1994) 4061-4068.
63. "Synergistic Interactions in Three-Center Metal-Metal Bonding: Cu-Zn on Ru(001)" J.A. Rodriguez and J. Hrbek, *Chem. Phys. Lett.*, 220 (1994) 486-492.
64. "The Nature of Metal-Metal Bonding at Bimetallic Interfaces" J.A. Rodriguez, R.A. Campbell and D.W. Goodman, *Surf. Sci.*, 307-309 (1994) 377-383 (**invited**).
65. "Decomposition of NO₂ on Metal Surfaces: Oxidation of Ag, Zn and Cu Films" J.A. Rodriguez and J. Hrbek, *J. Vac. Sci. Technol. A*, 12 (1994) 2140-2144.

66. "Chemical Properties of Zn on Ru(001): Coadsorption with Cs, O, Cu and Au" J.A. Rodriguez and J. Hrbek, *J. Vac. Sci. Technol. A*, 12 (1994) 2153-2158.
67. "Synergistic Interactions in Trimetallic Bonding: A Comparison of the ZnNM/Ru(001) (NM= Cu, Ag or Au) Systems" J.A. Rodriguez and J. Hrbek, *Surf. Sci.*, 312 (1994) 345-360.
68. "Cesium-Catalyzed Oxidation of Zinc Surfaces" J.A. Rodriguez and J. Hrbek, *Catal. Lett.* 26 (1994) 393-399.
69. "Interactions in Bimetallic Bonding: Electronic and Chemical Properties of PdZn Surfaces" J.A. Rodriguez, *J. Phys. Chem.*, 98 (1994) 5758-5764.
70. "Chemical Properties of Bimetallic Surfaces: Repulsive Interactions between Zn and S on Ru(001)" M. Kuhn, J.A. Rodriguez and J. Hrbek, *Surf. Sci.* 314 (1994) L897-L903.
71. "Electronic Interactions in Bimetallic Bonding: Molecular Orbital Study of Pd/Al(111) and Au/Al(111)" J.A. Rodriguez, *Surf. Sci.* 318 (1994) 253-261.
72. "Electronic and Chemical Properties of Ag/Pt(111) and Cu/Pt(111) Surfaces: Importance of Changes in the d Electron Populations", J.A. Rodriguez and M. Kuhn, *J. Phys. Chem.*, 98 (1994) 11251-11255.
73. "Interaction of Sulfur with Bimetallic Surfaces: Coadsorption of Sulfur and Noble Metals on Ru(001)", M. Kuhn and J.A. Rodriguez, *J. Phys. Chem.*, 98 (1994) 12059-12066.
74. "Repulsive Interactions between Sulfur and Gold on Ru(0001)" M. Kuhn and J.A. Rodriguez, *Chem. Phys. Lett.* 231 (1994) 199-205.
75. "The Interaction of Sulfur with Ag/Pt(111) Surfaces: Silver-Promoted Sulfidation of Platinum" M. Kuhn and J.A. Rodriguez, *J. Catal.* 154 (1995) 355-363.
76. "Electronic Properties of Pt in Bimetallic Systems: Photoemission and Molecular Orbital Studies for Pt-Al Surface Alloys", J.A. Rodriguez and M. Kuhn, *Chem. Phys. Lett.* 240 (1995) 435-441.
77. "Adsorption of Sulfur on Bimetallic Surfaces: Formation of Copper Sulfides on Pt(111) and Ru(001)" M. Kuhn and J.A. Rodriguez, *J. Vac. Sci. Technol. A*, 13 (1995) 1569-1573.
78. "Chemical and Electronic Properties of Pt in Bimetallic Surfaces: Photoemission and CO-Chemisorption Studies for Zn/Pt(111)" J.A. Rodriguez and M. Kuhn, *J. Chem. Phys.* 105 (1995) 4279-4289.
79. "The Interaction of Sulfur with Cu/Pt(111) and Zn/Pt(111) Surfaces: Copper-Promoted Sulfidation of Platinum", M. Kuhn and J.A. Rodriguez, *Catal. Lett.* 32 (1995) 345-355.

80. "Electronic Properties of Gold on Mo(110): d_{6s,p} Charge Redistribution and Valence Band Shifts", J.A. Rodriguez and M. Kuhn, *Surf. Sci.* 330 (1995) L657-L664.
81. "Coadsorption of Zn and S on Mo(110): Weakening of the Zn-Mo Bond and Zn-Promoted Sulfidation of Mo", M. Kuhn and J.A. Rodriguez, *Surf. Sci.* 336 (1995) 1.
82. "Reaction of S₂ with NM/Mo(110) (NM= Cu or Ag) Surfaces: Poisoning of Bimetallic Bonding and Noble-Metal Promoted Sulfidation of Mo" J.A. Rodriguez and M. Kuhn, *J. Phys. Chem.* 99 (1995) 9567-9575.
83. "Adsorption of Au on Ru(001): Electronic Perturbations and the Nature of the Bimetallic Bond" M. Kuhn, J.A. Rodriguez, J. Hrbek, A. Bzowski and T.K. Sham, *Surf. Sci.* 341 (1995) L1011-L1018.
84. "Chemical and Electronic Properties of Bimetallic Surfaces" J.A. Rodriguez and D.W. Goodman, *Acc. Chem. Res.* 28 (1995) 477-478.
85. "Interaction of Zinc with Transition-Metal Surfaces: Electronic and Chemical Perturbations induced by Bimetallic Bonding" J.A. Rodriguez and M. Kuhn, *J. Phys. Chem.* 100 (1996) 381-389.
86. "Repulsive Interactions between Au and S on Mo(110) and Rh(111): An Experimental and Theoretical Study", J.A.Rodriguez, M. Kuhn and J. Hrbek, *J. Phys. Chem.* 100 (1996) 3799-3808.
87. "Electronic and Chemical Properties of Pt, Pd and Ni in Bimetallic Surfaces", J.A. Rodriguez, *Surf. Sci.* 345 (1996) 347-362.
88. "Photoemission Studies of S/Co/Mo(110) and S/Ni/Mo(110) Surfaces: Co- and Ni-Promoted Sulfidation of Mo(110)", J.A. Rodriguez and M. Kuhn, *Surf. Sci.* 355 (1996) 85-99.
89. "Electronic Properties of Bimetallic Surfaces", J.A. Rodriguez, *Heterogeneous Chemistry Reviews*, 3 (1996) 17-32 (**invited**).
90. "The Bonding of Sulfur to a Pt(111) Surface: Photoemission and Molecular-Orbital Studies", J.A. Rodriguez, M. Kuhn and J. Hrbek, *Chem. Phys. Lett.* 251 (1996) 13-19.
91. "Interaction of Sulfur and Bimetallic Surfaces: Fe-Promoted Sulfidation of Mo(110)", J.A. Rodriguez and M. Kuhn, *J. Vac. Sci. Technol. A*, 14 (1996) 1609-1613.
92. "Ru-Promoted Alloying of Au and Cu Films: Photoemission Studies", M. Kuhn, A. Bzowski, T.K. Sham, J.A. Rodriguez and J. Hrbek, *Thin Solid Films*, 283 (1996) 209-220.
93. "Coadsorption and Reaction of Sulfur and Silver on a Ru(001) Surface", J. Hrbek, M. Kuhn and J.A. Rodriguez, *Surf. Sci.*, 356 (1996) L423-L428.

94. "The Interaction of Sulfur with Au/Pt(111) and Ag/Pt(111) Surfaces: Photoemission Studies", J.A. Rodriguez, M. Kuhn and J. Hrbek, *J. Phys. Chem.* 100 (1996) 15494-15502.
95. "Physical and Chemical Properties of Bimetallic Surfaces", *Surf. Sci. Reports*, 24 (1996) 223-287 (**invited**).
96. "Reaction of S₂ with X/Mo(110) (X= Fe, Pt or Al) Surfaces: Admetal-Promoted Sulfidation of Mo and the Behavior of Hydrodesulfurization Catalysts", M. Kuhn, J.A. Rodriguez and J. Hrbek, *Surf. Sci.* 365 (1996) 53-68.
97. "Reaction of Hydrogen with S/Mo(110) and MoS_x Films: Formation of Hydrogen Sulfide", S.Y. Li, J.A. Rodriguez, J. Hrbek, H.H. Huang and G.-Q. Xu, *Surf. Sci.* 366 (1996) 29-42.
98. "Chemical Properties of Zn/S/Mo(110) and Co/S/Mo(110) Surfaces: Reaction with Hydrogen and Formation of Hydrogen Sulfide", J.A. Rodriguez, S.Y. Li, J. Hrbek, H.H. Huang and G.-Q. Xu, *J. Phys. Chem.* 100 (1996) 14476-14484.
99. "Electronic and Chemical Properties of Pd in Bimetallic Systems: Interaction of Pd with Rh(111)", J.A. Rodriguez and M. Kuhn, *Surf. Sci.* 365 (1996) L669-L675.
100. "The Interaction of Ni and Fe with Sulfur and Molybdenum-Sulfide Surfaces: a TDS, XPS and Hydrogen-Chemisorption Study", J.A. Rodriguez, S.Y. Li, J. Hrbek, H.H. Huang and G.-Q. Xu, *Surf. Sci.* 370 (1996) 85-100.
101. "The Interaction of Silver, Cesium and Zinc with Alumina Surfaces: Thermal-Desorption and Photoemission Studies", J.A. Rodriguez, M. Kuhn and J. Hrbek, *J. Phys. Chem.*, 100 (1996) 18240-18248.
102. "Synthesis of Sulfur Films from S₂ Gas: Spectroscopic Evidence for the Formation of S_n Species", J. Hrbek, S.Y. Li, J.A. Rodriguez, H.H. Huang and G.-Q. Xu, *Chem. Phys. Lett.* 267 (1997) 65-71.
103. "Properties of Fe, Co, Ni, Cu and Zn on S/Mo(110) Surfaces and MoS_x Films: Metal-Metal Interactions and the Behavior of HDS Catalysts", J.A. Rodriguez, *Polyhedron*, 16 (1997) 3177-3184 (**invited**).
104. "The Interaction of Cu and S₂ with Aluminum and Alumina Surfaces: A Comparative Study", J.A. Rodriguez, M. Kuhn and J. Hrbek, *Surf. Sci.* 380 (1997) 397-407.
105. "Interactions between Sulfur and Platinum in Bimetallic Surfaces: Reaction of S₂ with Pt-Al Alloys", J.A. Rodriguez and M. Kuhn, *J. Vac. Sci. Technol. A*, 15 (1997) 1608-1612.
106. "Thermal Stability of Ultrathin Cr Films on Pt(111)", L. Zhang, M. Kuhn, U. Diebold and J.A. Rodriguez, *J. Phys. Chem. B*, 101 (1997) 4588-4596.

107. "The Reaction of Hydrogen with O/Ru(001) and RuO_x Films: Formation of Hydroxyl and Water", S.Y. Li, J.A. Rodriguez, J. Hrbek, H.H. Huang and G.-Q. Xu, *J. Vac. Sci. Technol. A*, 15 (1997) 1692-1697.
108. "The Adsorption of Sulfur on Ag/Al₂O₃ and Zn/Al₂O₃ Surfaces: Thermal Desorption, Photoemission and Molecular Orbital Studies", J.A. Rodriguez and M. Kuhn, *J. Phys. Chem. B*, 101 (1997) 3187-3195.
109. "Cesium Promoted Oxidation of Zinc and Copper-Zinc Surfaces: A Combined Experimental and Theoretical Study", S. Chaturvedi, J.A. Rodriguez and J. Hrbek, *Surf. Sci.* 384 (1997) 260-275.
110. "Chemical and Electronic Properties of Silver Atoms Supported on Sulfur and Molybdenum Sulfide Surfaces", S.Y. Li, J.A. Rodriguez, J. Hrbek, H.H. Huang and G.-Q. Xu, *Surf. Sci.* 395 (1998) 216-228.
111. "Interaction of Hydrogen and Thiophene with Ni/MoS₂ and Zn/MoS₂ Surfaces: A Molecular Orbital Study", J.A. Rodriguez, *J. Phys. Chem. B*, 101 (1997) 7524-7534.
112. "H₂S Adsorption on Chromium, Chromia and Gold/Chromia Surfaces: Photoemission Studies", J.A. Rodriguez, S. Chaturvedi, M. Kuhn, J. van Ek, U. Diebold, P.S. Robbert, H. Geisler and C.A. Ventrice, *J. Chem. Phys.* 107 (1997) 9146-9156.
113. "Electronic Properties and Phase Transformations in CoMoO₄ and NiMoO₄: XANES and Time-Resolved Synchrotron XRD Studies", J.A. Rodriguez, S. Chaturvedi, J.C. Hanson, A. Albornoz and J.L. Brito, *J. Phys. Chem. B*, 102 (1998) 1347-1355.
114. "Reaction of S₂ with ZnO and Cu/ZnO Surfaces: Photoemission and Molecular Orbital Studies", S. Chaturvedi, J.A. Rodriguez and J. Hrbek, *J. Phys. Chem. B*, 101 (1997) 10860-10869.
115. "Interactions between Cs and Noble Metals (Cu, Ag and Au) on ZnO Surfaces: Electronic Perturbations and Alloy Formation", S. Chaturvedi and J.A. Rodriguez, *Surf. Sci.* 401 (1998) 282-295.
116. "The Adsorption of Sulfur on Rh(111) and Cu/Rh(111) Surfaces", J.A. Rodriguez, S. Chaturvedi and M. Kuhn, *J. Chem. Phys.* 108 (1998) 3064-3073.
117. "Characterization of Pure and Sulfided NiMoO₄ Catalysts using Synchrotron-based X-ray Absorption Spectroscopy (XAS) and Temperature Programmed Reduction (TPR)", S. Chaturvedi, J.A. Rodriguez and J.L. Brito, *Catal. Lett.* 51 (1998) 85-98.

118. "The Interaction of H₂S and S₂ with Metal/Oxide Surfaces: Correlation Between Band-Gap Size and Reactivity", J.A. Rodriguez, S. Chaturvedi, M. Kuhn and J. Hrbek, *J. Phys. Chem. B*, 102 (1998) 5511-5519.
119. "Novel Electronic and Magnetic Properties of Ultra-Thin Chromium Oxide Films Grown on Pt(111)", P.S. Robbert, H. Geisler, C.A. Ventrice, J. van Ek, S. Chaturvedi, J.A. Rodriguez, M. Kuhn and U. Diebold, *J. Vac. Sci. Technol. A*, 16 (1998) 990-995.
120. "The Interaction of H₂S and S₂ with Cs and Cs/ZnO Surfaces: Photoemission and Molecular-Orbital Studies", J.A. Rodriguez, T. Jirsak, S. Chaturvedi and J. Hrbek, *Surf. Sci.* 407 (1998) 171-188.
121. "Properties of Pure and Sulfided NiMoO₄ and CoMoO₄ Catalysts: TPR, XANES and Time-Resolved XRD Studies", S. Chaturvedi, J.A. Rodriguez, J.C. Hanson, A. Albornoz and J.L. Brito, Proceedings of Symposium on Advanced Catalytic Materials, Materials Research Society: Fall 1997 Meeting, Vol 497, p. 41.
122. "Ag Promoted Sulfidation of Metal and Oxide Surfaces: A Photoemission Study of the Interaction of Sulfur with Ag/Rh(111) and Ag/ZnO", S. Chaturvedi, J.A. Rodriguez, T. Jirsak and J. Hrbek, *Surf. Sci.* 412/413 (1998) 273-286.
123. "Reaction of S₂ and H₂S with Sn/Pt(111) Surface Alloys: Effects of Metal-Metal Bonding on Reactivity towards Sulfur", J.A. Rodriguez, S. Chaturvedi, T. Jirsak and J. Hrbek, *J. Chem. Phys.* 109 (1998) 4052-4062.
124. "Chemistry of SO₂ on Ru(001): Formation of SO₃ and SO₄", T. Jirsak, J.A. Rodriguez, S. Chaturvedi and J. Hrbek, *Surf. Sci.* 418 (1998) 8-21.
125. "Surface Chemistry of SO₂ on Zn and ZnO: Photoemission and Molecular Orbital Studies", S. Chaturvedi, J.A. Rodriguez, T. Jirsak and J. Hrbek, *J. Phys. Chem. B*, 102 (1998) 7033-7043.
126. "A comparison of the Reaction of S₂ with Cu, Cu₂O and Cu/ZnO: Electronic Properties and Reactivity of Copper", J.A. Rodriguez, S. Chaturvedi and M. Kuhn, *Surf. Sci.* 415 (1998) L1065-L1073.
127. "Surface Chemistry of SO₂ on Sn and Sn/Pt(111) Alloys Effects of Metal-Metal Bonding on Reactivity towards Sulfur", J.A. Rodriguez, T. Jirsak, S. Chaturvedi and J. Hrbek, *J. Am. Chem. Soc.* 120 (1998) 11149-11157.
128. "Reaction of H₂ and H₂S with CoMoO₄ and NiMoO₄: TPR, XANES, Time-Resolved XRD, and Molecular-Orbital Studies", J.A. Rodriguez, S. Chaturvedi, J. Hanson and J.L. Brito, *J. Phys. Chem. B*, 103 (1999) 770-781.
129. "Bonding of Sulfur to Pd Surfaces: Photoemission and Molecular-Orbital Studies", J.A. Rodriguez, S. Chaturvedi, and T. Jirsak, *Chem. Phys. Lett.* 296 (1998) 421-428.

130. "Chemistry of SO₂ on Mo(110), MoO₂/Mo(110) and Cs/Mo(110) Surfaces: Effects of O and Cs on the Formation of SO₃ and SO₄ Species", T. Jirsak, J.A. Rodriguez and J. Hrbek, *Surf. Sci.* 426 (1999) 319-335.
131. "Reaction of S₂ and SO₂ with Pd/Rh(111) Surfaces: Effects of Metal-Metal Bonding on Sulfur Poisoning", J.A. Rodriguez, T. Jirsak and S. Chaturvedi, *J. Chem. Phys.* 110 (1999) 3138-3148.
132. "Adsorption of Thiophene on Surfaces of Clean and Ni-promoted Molybdenum Sulfide", J.A. Rodriguez, J. Dvorak, A.T. Capitano, A.M. Gabelnick and J.L. Gland, *Surf. Sci.* 429 (1999) L462-L468.
133. "Reaction of SO₂ with Cesium and Cesium-promoted ZnO and MoO₂", J.A. Rodriguez, T. Jirsak and J. Hrbek, *J. Phys. Chem. B*, 103 (1999) 1966-1976.
134. "Chemistry of Thiophene on ZnO, S/ZnO and Cs/ZnO Surfaces: Effects of Cesium on Desulfurization Processes", T. Jirsak, J. Dvorak and J.A. Rodriguez, *J. Phys. Chem. B*, 103 (1999) 5550.
135. "Electronic Structure of Au-Ag bimetallics: Surface Alloying on Ru(001)", A. Bzowski, M. Kuhn, T.K. Sham, J.A. Rodriguez, and J. Hrbek, *Phys. Rev. B*, 59 (1999) 13379-13393.
136. "Adsorption of NO₂ on Rh(111) and Pd/Rh(111): Photoemission Studies", T. Jirsak, J. Dvorak and J.A. Rodriguez, *Surf. Sci.* 436 (1999) L683-L690.
137. "Interaction of Sulfur with Well-Defined Metal and Oxide Surfaces: Unraveling the Mysteries behind Catalyst Poisoning and Desulfurization", J.A. Rodriguez and J. Hrbek, *Accounts of Chemical Research*, 32 (1999) 719-728 (**invited**).
138. "Chemistry of Thiophene, Pyridine and Cyclohexylamine on Ni/MoS_x and Ni/S/Mo(110) Surfaces: Role of Nickel in Hydrodesulfurization and Hydrodenitrogenation Processes", J.A. Rodriguez, J. Dvorak, T. Jirsak, S.Y. Li, J. Hrbek, A.T. Capitano, A.M. Gabelnick and J.L. Gland, *J. Phys. Chem. B*, 103 (1999) 8310-8318.
139. "Reaction of H₂S with MgO(100) and Cu/MgO(100) Surfaces: Band-Gap Size and Chemical Reactivity", J.A. Rodriguez, T. Jirsak and S. Chaturvedi, *J. Chem. Phys.* 111 (1999) 8077-8087.
140. "Interaction of SO₂ with CeO₂ and Cu/CeO₂ Catalysts: Photoemission, XANES and TPD Studies", J.A. Rodriguez, T. Jirsak, A. Freitag, J.C. Hanson, J.Z. Larese and S. Chaturvedi, *Catalysis Letters*, 62 (1999) 113-119.

141. "A Prelude to Surface Chemical Reaction: Visualization of the Induction Period of Sulfur Interaction with a Strained Cu Layer", J. Hrbek, J. de la Figuera, K. Pohl, T. Jirsak, J.A. Rodriguez, A.K. Schmid, N.C. Bartelt and R.Q. Hwang, *J. Phys. Chem. B*, 103 (1999) 10557-10561.
142. "Reaction of SO₂ with ZnO(000̄)-O and ZnO Powders: Photoemission and XANES Studies on the Formation of SO₃ and SO₄", J.A. Rodriguez, T. Jirsak, S. Chaturvedi, and M. Kuhn, *Surf. Sci.* 442 (1999) 400-412.
143. "Phase Transitions and Electronic Properties in Mixed-Metal Oxides: Experimental and Theoretical Studies on the Behavior of NiMoO₄ and MgMoO₄", J.A. Rodriguez, J.C. Hanson, S. Chaturvedi, A. Maiti and J.L. Brito, *J. Chem. Phys.* 112 (2000) 935-945.
144. "Chemistry of SO₂ on Model Metal and Oxide Catalysts: Photoemission and XANES Studies", J.A. Rodriguez, T. Jirsak, S. Chaturvedi, J. Hrbek, A. Freitag and J.Z. Larese, *Studies in Surface Science and Catalysis*, 130 (2000) 3177-3182.
145. "Characterization of Oxide Catalysts using Time-Resolved XRD and XANES: Properties of Pure and Sulfided CoMoO₄ and NiMoO₄", J.A. Rodriguez, J.C. Hanson, S. Chaturvedi and J.L. Brito, *Studies in Surface Science and Catalysis*, 130 (2000) 2795-2800.
146. "Reaction of NO₂ with Zn and ZnO: Photoemission, XANES and Density Functional Studies on the Formation of NO₃", J.A. Rodriguez, T. Jirsak, J. Dvorak, S. Sambasivan and D. Fischer, *J. Phys. Chem. B*, 104 (2000) 319-328 .
147. "Chemistry of NO₂ on Mo(110): Descomposition Reactions and Formation of MoO₂", T. Jirsak, M. Kuhn and J.A. Rodriguez, *Surf. Sci.* 457 (2000) 254-266.
148. "Chemistry of Thiophene on Mo(110), MoC_x and MoS_x Surfaces: Photoemission Studies", J.A. Rodriguez, J. Dvorak and T. Jirsak, *Surf. Sci.* 457 (2000) L413-L420.
149. "Adsorption and Decomposition of H₂S on MgO(100), NiMgO(100), and ZnO(0001) Surfaces: A First-Principles Density Functional Study", J.A. Rodriguez and A. Maiti, *J. Phys. Chem. B*, 104 (2000) 3630-3638.
150. "Experimental Investigations on the Interaction of SO₂ with MgO", A. Freitag, J.A. Rodriguez and J.Z. Larese, *Symposium on Applications of Synchrotron Radiation Techniques to Materials Science, MRS Symposium Proceedings*, 590 (2000) 189-194.
151. "Characterization of Mixed-Metal Oxides using Synchrotron-Based Time-Resolved X-ray Diffraction and X-ray Absorption Spectroscopy", J.A. Rodriguez, J.C. Hanson, J.L. Brito and A. Maiti, *Symposium on Applications of Synchrotron Radiation Techniques to Materials Science, MRS Symposium Proceedings*, 590 (2000) 113-118.

152. "Chemistry of NO₂ on CeO₂ and MgO: Experimental and Theoretical Studies on the Formation of NO₃", J.A. Rodriguez, T. Jirsak, S. Sambasivan, D. Fischer and A. Maiti, *J. Chem. Phys.* 112 (2000) 9929-9938.
153. "Interaction of SO₂ with MgO(100) and Cu/MgO(100): Decomposition Reactions and the Formation of SO₃ and SO₄", J.A. Rodriguez, T. Jirsak, A. Freitag, J.Z. Larese, and A. Maiti, *J. Phys. Chem. B*, 104 (2000) 7439-7448.
154. "Studies on the Behavior of Mixed-Metal Oxides: Structural, Electronic and Chemical Properties of β -FeMoO₄", J.A. Rodriguez, J.C. Hanson, S. Chaturvedi, A. Maiti, and J.L. Brito, *J. Phys. Chem. B*, 104 (2000) 8145-8152.
155. "Interaction of Sulfur with Pt(111) and Sn/Pt(111): Effects of Coverage and Metal-Metal Bonding on Reactivity towards Sulfur", J.A. Rodriguez, J. Hrbek, M. Kuhn, T. Jirsak, S. Chaturvedi, and A. Maiti, *J. Chem. Phys.* 113 (2000) 11284-11292.
156. "Chemistry of SO₂, H₂S, and CH₃SH on Carbide-Modified Mo(110) and Mo₂C powders: Photoemission and XANES Studies", J.A. Rodriguez, J. Dvorak and T. Jirsak, *J. Phys. Chem. B*, 104 (2000) 11515.
157. "Interaction of NO and NO₂ with MgO(100): Photoemission and Density Functional Studies", J.A. Rodriguez, T. Jirsak, J.-Y. Kim, J.Z. Larese and A. Maiti, *Chem. Phys. Lett.* 330 (2000) 475-483.
158. "Chemistry of SO₂ and NO₂ on ZnO(0001)-Zn and ZnO Powders: Changes in Reactivity with Surface Structure and Composition", J.A. Rodriguez, T. Jirsak, S. Chaturvedi and J. Dvorak, *J. Molec. Catal. A*, 167 (2001) 47-57.
159. "Studies on the Behavior of Mixed-Metal Oxides and Desulfurization: Reaction of H₂S and SO₂ with Cr₂O₃(0001), MgO(100) and Cr_xMg_{1-x}O(100)", J.A. Rodriguez, T. Jirsak, M. Perez, S. Chaturvedi, M. Kuhn, L. Gonzalez, and A. Maiti, *J. Am. Chem. Soc.* 122 (2000) 12362-12370.
160. "Chemistry of NO₂ and SO₂ on ice layers and H₂O/Zn Interfaces: Photoemission Studies on the Formation of Acid Water and Metal Corrosion", T. Jirsak and J.A. Rodriguez, *Langmuir*, 16 (2000) 10287-10293.
161. "Studies on the Behavior of Mixed-Metal Oxides: Adsorption of CO and NO on MgO(100), Ni_xMg_{1-x}O(100) and Cr_xMg_{1-x}O(100)", J.A. Rodriguez, M. Perez, L. Gonzalez, T. Jirsak and A. Maiti, *J. Chem. Phys.* 114 (2001) 4186-4195.
162. "High Resolution Photoemission Studies of Sulfur Interaction with Model Catalytic Surfaces", J. Hrbek, J.A. Rodriguez, T. Jirsak, and J. Dvorak, *J. Electron Spectroscopy and Related Phenomena*, 119 (2001) 201-206.

163. "Coadsorption of Sodium and SO₂ on MgO(100): Alkali Promoted S-O Bond Cleavage", J.A. Rodriguez, M. Perez, T. Jirsak, L. Gonzalez and A. Maiti, *Surf. Sci.* 477 (2001) L279-L288.
164. "DeNOx Reactions on MgO(100), Zn_xMg_{1-x}O(100), Cr_xMg_{1-x}O(100), and Cr₂O₃(0001): Correlation between Electronic and Chemical Properties of Mixed-Metal Oxides", J.A. Rodriguez, M. Perez, T. Jirsak, L. Gonzalez, A. Maiti and J.Z. Larese, *J. Phys. Chem. B*, 105 (2001) 5497-5005.
165. "Environmental Catalysis and the Chemistry of SO₂ on Oxide Surfaces: Fundamental Principles for the Cleavage of S-O Bonds@, J.A. Rodriguez, *Ciencia*, 9 (2001) 139-154 (**invited**).
166. "Electronic and Chemical Properties of Ce_{0.8}Zr_{0.2}O₂(111) Surfaces: Photoemission, XANES, Density Functional, and NO₂ Adsorption Studies", G. Liu, J.A. Rodriguez, J. Hrbek, J. Dvorak, and C.H.F. Peden, *J. Phys. Chem. B*, 105 (2001) 7762-7770.
167. "Interaction of Sulfur with TiO₂(110): Photoemission and Density-Functional Studies", J.A. Rodriguez, J. Hrbek, J. Dvorak, T. Jirsak and A. Maiti, *Chem. Phys. Lett.* 336 (2001) 377-384.
168. "Fundamental Studies of Desulfurization Processes: Reaction of Methanethiol on ZnO and Cs/Zn", J. Dvorak, T. Jirsak, and J.A. Rodriguez, *Surf. Sci.* 479 (2001) 155.
169. "Electronic and Chemical Properties of Palladium in Bimetallic Systems: How Much Do We Know About Heteronuclear Metal-Metal Bonding?" J.A. Rodriguez, Chapter for: "The Chemical Physics of Solid Surfaces and Heterogeneous Catalysis", Vol. 10, chapter 12, Elsevier, Amsterdam, (2002). (**invited**).
170. "Density Functional Studies of the Adsorption and Decomposition of SO₂ on Cu(100)", J.A. Rodriguez, J.M. Ricart, A. Clotet, and F. Illas, *J. Chem. Phys.* 115 (2001) 454-465.
171. "Chemistry of NO₂ on Oxide Surfaces: Formation of NO₃ on TiO₂(110) and NO₂↔O Vacancy Interactions", J.A. Rodriguez, T. Jirsak, G. Liu, J. Hrbek, J. Dvorak, and A. Maiti, *J. Am. Chem. Soc.* 123 (2001) 9597-9605.
172. "Formation of Mo and MoS_x Nanoparticles on Au(111) from Mo(CO)₆ and S₂ Precursors: Electronic and Chemical Properties", J.A. Rodriguez, J. Dvorak, T. Jirsak and J. Hrbek, *Surf. Sci.* 490 (2001) 315-326.
173. "Sulfur Adsorption and Reaction with a TiO₂(110) Surface: O-S Exchange Mechanism and Sulfide Formation", J. Hrbek, J.A. Rodriguez, J. Dvorak and T. Jirsak, *Collec. Czech. Chem. Commun.* 66 (2001) 1149-1163.

174. "Orbital-Band Interactions and the Reactivity of Molecules on Oxide Surfaces: From Explanations to Predictions", J.A. Rodriguez, Theoretical Chem. Accounts, 107 (2002) 117-129 (**invited**).
175. "Reaction of SO₂ with Pure and Metal-doped MgO: Basic Principles for the Cleavage of S-O Bonds", J.A. Rodriguez, T. Jirsak, L. Gonzalez, J. Evans, M. Perez, and A. Maiti, J. Chem. Phys., 115 (2001) 10914-10926.
176. "Experimental and Theoretical Studies on the Reaction of H₂ with NiO: Role of O Vacancies and Mechanism for Oxide Reduction", J.A. Rodriguez, J.C. Hanson, A.I. Frenkel, J.Y. Kim and M. Perez, J. Am. Chem. Soc. 124 (2002) 346-354.
177. "Chemistry of Sulfur-Containing Molecules on Au(111): Thiophene, Sulfur Dioxide, and Methanethiol Adsorption", G. Liu, J.A. Rodriguez, J. Dvorak, J. Hrbek and T. Jirsak, Surf. Sci. 505 (2002) 295-307.
178. "A First-Principles Study of the Adsorption of Sulfur on Pt(111): S Core-Level Shifts and the Nature of the Pt-S Bond", Z. Yang, R. Wu and J.A. Rodriguez, Phys. Rev. B, 65 (2002) 155409-1,9.
179. "Interaction of Sulfur with Bimetallic Surfaces: Effects of Structural, Electronic and Chemical Properties" J.A. Rodriguez and J. Hrbek, Chapter for: "The Chemical Physics of Solid Surfaces and Heterogeneous Catalysis", Vol. 10, chapter 13, Elsevier, Amsterdam, 2002. (**invited**).
180. "Reduction of CoMoO₄ and NiMoO₄: *In-Situ* Time-Resolved XRD Studies", J.A. Rodriguez, J.Y. Kim, J.C. Hanson, and J.L. Brito, Catal. Lett., 82 (2002) 103-109.
181. "Synthesis, Electronic and Chemical Properties of MoO_x Clusters on Au(111)", Z. Chang, Z. Song, G. Liu, J.A. Rodriguez and J. Hrbek, Surf. Sci. 512 (2002) L353-L360.
182. "Activation of Gold on Titania: Adsorption and Reaction of SO₂ on Au/ TiO₂(110)", J.A. Rodriguez, G. Liu, T. Jirsak, J. Hrbek, Z. Chang, J. Dvorak, and A. Maiti, J. Am. Chem. Soc. 124 (2002) 5242-5250.
183. "Importance of Oxygen Vacancies in the Behavior of Oxide Surfaces: Adsorption of Sulfur on TiO₂(110)", J.A. Rodriguez, J. Hrbek, Z. Chang, J. Dvorak, T. Jirsak and A. Maiti, Phys. Rev. B, 65 (2002) 235414-1,12.
184. "Structural and Electronic Properties of PbTiO₃, PbZrO₃, and PbZr_{0.5}Ti_{0.5}O₃: First-principles Density-Functional Studies", J.A. Rodriguez, A. Etxeberria, L. Gonzalez, and A. Maiti, J. Chem. Phys. 117 (2002) 2699-2709.
185. "Adsorption of Methanethiol on Stoichiometric and Defective TiO₂(110) Surfaces: A Combined Experimental and Theoretical Study", by G. Liu, J.A. Rodriguez, Z. Chang, J. Hrbek, and L. Gonzalez, J. Phys. Chem. B, 106 (2002) 9883-9891.

186. "Reduction of CuO in H₂: *In Situ* Time-Resolved XRD Studies", J.A. Rodriguez, J.Y. Kim, J.C. Hanson, M. Perez, and A. Frenkel, *Catal. Lett.* 85 (2003) 247-254.
187. "Electronic and Chemical Properties of Mixed-Metal Oxides: Adsorption of SO₂ on SrTiO₃(001)", J.A. Rodriguez, J. Garcia, and L. Gonzalez, *Chem. Phys. Lett.* 365 (2002) 380-386.
188. "Coverage Effects and the Nature of the Metal-Sulfur Bond in S/Au(111): High-resolution Photoemission and Density-Functional Studies" J.A. Rodriguez, J. Dvorak, T. Jirsak, G. Liu, J. Hrbek, Y. Aray and C. Gonzalez, *J. Am. Chem. Soc.* 125 (2003) 276-285.
189. "Electronic and Chemical Properties of Mixed-Metal Oxides: Adsorption and Reaction of NO on SrTiO₃(100)", J.A. Rodriguez, S. Azad, L.-Q. Wang, J. Garcia, A. Etxeberria, and L. Gonzalez, *J. Chem. Phys.* 118 (2003) 6562-6571.
190. "The deposition of Mo Nanoparticles on Au(111) from a Mo(CO)₆ Precursor: Effects of CO on Mo-Au Intermixing", P. Liu, J.A. Rodriguez, J.T. Muckerman, and J. Hrbek, *Surf. Sci.* 530 (2003) L313-L321.
191. "Properties of CeO₂ and Ce_{1-x}Zr_xO₂ Nanoparticles: XANES, Density Functional, and Time-Resolved XRD Studies", J.A. Rodriguez, J.C. Hanson, J.-Y. Kim, G. Liu, A. Iglesias-Juez and M. Fernandez-Garcia, *J. Phys. Chem. B*, 107 (2003) 3535-3543.
192. "A Novel Growth Mode of Mo on Au(111) from a Mo(CO)₆ Precursor: An STM Study", Z. Song, T. Cai, J.A. Rodriguez, J. Hrbek, A.S.Y. Chan, and C.M. Friend, *J. Phys. Chem. B*, 107 (2003) 1036-1043.
193. "Interaction of CO, O and S with Metal Nanoparticles on Au(111): A Theoretical Study", P. Liu, J.A. Rodriguez, J.T. Muckerman and J. Hrbek, *Phys. Rev. B*, 67 (2003) 155416-1,10.
194. "Physical and Chemical Properties of MoP, Ni₂P and MoNiP Hydrodesulfurization Catalysts: Time-Resolved X-ray Diffraction, Density Functional, and Hydrodesulfurization Activity Studies", J. A. Rodriguez, J.-Y. Kim, J. C. Hanson, S. J. Sawhill and M. E. Bussell *J. Phys. Chem. B*, 107 (2003) 6276-6285.
195. "Electronic and Chemical Properties of Mixed-Metal Oxides: Basic Principles for the Design of DeNOx and DeSOx Catalysis", J. A. Rodriguez, *Catalysis Today*, 85 (2003) 177-192 (**invited**).
196. "Interaction of Thiophene with Stoichiometric and Reduced Rutile TiO₂(110) Surfaces: Role of Ti³⁺ Sites in Desulfurization Activity", G. Liu, J. A. Rodriguez and J. Hrbek *Journal of Molecular Catalysis*, 202 (2003) 215-227.

197. "Reduction of CuO and Cu₂O with H₂: H Embedding and Kinetic Effects in the Formation of Suboxides", J. Y. Kim, J. A. Rodriguez, J. C. Hanson, A. I. Frenkel and P. L. Lee, *J. Am. Chem. Soc.* 125 (2003) 10684-10692.
198. "Chemical Reactivity of Metcar Ti₈C₁₂, Nanocrystal Ti₁₄C₁₃ and A Bulk TiC(001) Surface: A Density Functional Study", P. Liu, J. A. Rodriguez, H. Hou and J. T. Muckerman *J. Chem. Phys.* 118 (2003) 7737-7740.
199. "Ru Nanoclusters Prepared by Ru₃(CO)₁₂ Deposition on Au(111)", T. Cai, Z. Song, Z. Chang, G. Liu, J. A. Rodriguez and J. Hrbek, *Surf. Sci.* 538 (2003) 76-88.
200. "Molecular Level Study of the Formation and the Spread of MoO₃ on Au(111) by STM and XPS", Z. Song, T. Cai, Z. Chang, G. Liu, J. A. Rodriguez, and J. Hrbek, *J. Am. Chem. Soc.* 125 (2003) 8059-8066.
201. "Effects of Carbon on the Stability and Chemical Performance of Transition Metal Carbides: A Density Functional Study", P. Liu and J. A. Rodriguez *J. Chem. Phys.* 120 (2004) 5414-5423.
202. "Activation of Au Nanoparticles on Oxide Surfaces: Reaction of SO₂ with Au/MgO(100)", J. A. Rodriguez, M. Perez, T. Jirsak, J. Evans, J. Hrbek and L. Gonzalez *Chem. Phys. Lett.* 378 (2003) 526-532.
203. "The Behavior of Mixed-Metal Oxides: Structural and Electronic Properties of Ce_{1-x}Ca_xO₂ and Ce_{1-x}Ca_xO_{2-x}", J. A. Rodriguez, X. Wang, J. C. Hanson, G. Liu, A. Iglesias-Juez and M. Fernández-García, *J. Chem. Phys.* 119 (2003) 5659-5669.
204. "Adsorption and Decomposition of SO₂ on TiC(001): An Experimental and Theoretical Study", J. A. Rodriguez, P. Liu, J. Dvorak, T. Jirsak, J. Gomes, Y. Takahashi and K. Nakaura, *Surf. Sci.* 543 (2003) L675-L682.
205. "SnO₂ Nanoribbons as NO₂ Sensors: Insights from First-principles Calculations", A. Maiti, J. A. Rodriguez, M. Law, P. Kung, J. R. McKinney and P. Yang, *Nanoletters*, 3 (2003) 1025-1028.
206. "A Computational Study of the Geometry and Properties of the Metcars Ti₈C₁₂ and Mo₈C₁₂", H. Hou, J. T. Muckerman, P. Liu and J. A. Rodriguez, *J. Phys. Chem. A*, 107 (2003) 9344-9353.
207. "Adsorption and Reaction of SO₂ on Model Ce_{1-x}Zr_xO₂(111) Catalysts", G. Liu, J. A. Rodriguez, Z. Chang, J. Hrbek and C. H. F. Peden, *J. Phys. Chem. B* 108 (2004) 2931-2938.

208. “*In-Situ* Time Resolved Powder Diffraction Studies in Heterogeneous Catalysis: Coupling the Study of Long Range and Local Structural Changes”, P. J. Chupas, C. P. Grey, J. C. Hanson, J.-Y. Kim, J. A. Rodriguez, X. Qiu, S. J. L. Billinge and P. L. Lee, *Comm. Powder Diffraction Newsletter* 29 (2003) 24-25.
209. “Interaction of Sulfur Dioxide with Titanium-Carbide Nanoparticles and Surfaces: A Density Functional Study”, P. Liu and J. A. Rodriguez, *J. Chem. Phys.* 119 (2003) 10895-10903.
210. “Gold Nanoparticles on Titania: Activation and Behavior”, J. A. Rodriguez In: *Dekker Encyclopedia of Nanoscience*, Dekker Publishing: New York, NY, 2004. Pages 1297-1304 (**invited**).
211. “Catalytic Properties of Molybdenum Carbide, Nitride and Phosphide Catalysts: A Theoretical Study”, P. Liu and J. A. Rodriguez, *Catalysis Letters*, 91 (2003) 247-252.
212. “Surface Science Studies of DeNO_x Catalysts”, J. A. Rodriguez, In: *Environmental Catalysis*, V.H. Grassian (editor), Taylor & Francis: Boca Raton, Florida, 2005. Chapter 9 (**invited**).
213. “The Adsorption of Sulfur on TiC(001): Photoemission and First-principles Studies”, J. A. Rodriguez, P. Liu, J. Dvorak, T. Jirsak, J. Gomes, Y. Takahashi and K. Nakamura, *Phys. Rev. B*, 69 (2004) 115414, 1-10.
214. “Structure and Reactivity of Ru Nanoparticles Supported on Modified Graphite Surfaces: A Study of the Model Catalysts for Ammonia Synthesis”, Z. Song, T. Cai, J. C. Hanson, J. A. Rodriguez and J. Hrbek, *J. Am. Chem. Soc.* 126 (2004) 8576.
215. “Physical and Chemical Properties of Bulk Ce_{1-x}Tb_xO₂ and Nanoparticles of Ce_{1-x}Tb_xO_y”, J. A. Rodriguez, X. Wang, J. C. Hanson, G. Liu, A. Iglesias-Juez and M. Fernández-García, *J. Chem. Phys.* 121 (2004) 5434-5444.
216. “Preparation and Structural Characterization of RuS₂ Nano-Islands on Au(111)”, T. Cai, Z. Song, J. A. Rodriguez and J. Hrbek, *J. Am. Chem. Soc.* 126 (2004) 8886-8887.
217. “The Interaction of Oxygen with TiC(001): Photoemission and First-Principles Studies”, J. A. Rodriguez, P. Liu, J. Dvorak, T. Jirsak, J. Gomes, Y. Takahashi and K. Nakamura *J. Chem. Phys.* 121 (2004) 465-474.
218. “Physical and Chemical Properties of Ce_{1-x}Zr_xO₂ Nanoparticles and Ce_{1-x}Zr_xO₂(111) Surfaces: Synchrotron-based Studies”, J. A. Rodriguez, X. Wang, G. Liu, J. Hanson, J. Hrbek, C. H. F. Peden, A. Iglesias-Juez and M. Fernández-García, *J. Molec. Catalysis A: Chemical*, 228 (2005) 11-19.

219. "Desulfurization of SO₂ and Thiophene on Surfaces and Nanoparticles of Molybdenum Carbide: Unexpected Ligand and Steric Effects", P. Liu, J. A. Rodriguez and J. T. Muckerman, *J. Phys. Chem. B*, 108 (2004) 15662-15670.
220. "Time-Resolved Studies for the Mechanism of Reduction of Copper Oxides with Carbon Monoxide: Complex Behavior of Lattice Oxygen and the Formation of Suboxides", X. Wang, J.C. Hanson, A. Frenkel, J.-Y. Kim, and J.A. Rodriguez, *J. Phys. Chem. B*, 108 (2004) 13667-13673.
221. "Nanostructured Oxides in Chemistry: Characterization and Properties", M. Fernández-García, A. Martinez-Arias, J. C. Hanson and J. A. Rodriguez, *Chem. Rev.* 104 (2004) 4063-4104 (**invited**).
222. "A Systematic Density Functional Theory Study of the Electronic Structure of Bulk and (001) Surface of Transition-Metals Carbides", F. Viñes, C. Sousa, P. Liu, J.A. Rodriguez and F. Illas, *J. Chem. Phys.*, 122 (2005) 174709, 1-11.
223. "Interaction of H₂O and NO₂ with BaY Faujasite: Complex Contraction/ Expansion Behavior of the Zeolite Unit Cell", X. Wang, J.C. Hanson, J. Szanyi, and J.A. Rodriguez, *J. Phys. Chem. B*, 108 (2004) 16613-16616.
224. "XANES Characterization of Extremely Nanosized Metal Carbonyl Subspecies (Me=Cr,Mn,Fe and Co) Confined onto the Mesopores of MCM-41 Materials", J. M. Ramallo-Lopez, E. J. Lede, F. G. Requejo, J. A. Rodriguez, J.-Y. Kim and R. Rosas-Salas, *J. Phys. Chem. B*, 108 (2004) 20005-20010.
225. "Chemical Activity of Iron in [2Fe-2S]-Protein Centers and FeS₂(100) Surfaces", J.A. Rodriguez and I. Abreu, *J. Phys. Chem. B*, 109 (2005) 2754-2762.
226. "The Chemical Activity of Metal Compound Nanoparticles: Importance of Electronic and Steric Effects in M₈C₁₂ (M= Ti, V, Mo) Metcars", P. Liu, J.A. Rodriguez and J. Muckerman, *J. Chem. Phys.* 121 (2004) 10321-10324.
227. "Reaction of CuO with Hydrogen Studied by Using Synchrotron-Based X-ray Diffraction", J.Y. Kim, J.C. Hanson, A.I. Frenkel, P.L. Lee and J.A. Rodriguez, *J. Phys.: Condens. Matter*, 16 (2004) S3479-S3484.
228. "Characterization of NO_x Species in Dehydrated and Hydrated Na- and BaY, FAU Zeolites formed in NO₂ Adsorption" J. Szanyi, J.H. Kwak, S. Burton, J.A. Rodriguez and C.H.F. Peden, *J. Electron Spectroscopy and Related Phenomena*, 150 (2006) 164-170.
229. "Theoretical Studies of Manganese and Iron Superoxide Dismutases: Superoxide Binding and Superoxide Oxidation", I. Abreu, J.A. Rodriguez and D.E. Cabelli, *J. Phys. Chem. B*, 109 (2005) 24502-24509.

230. "Sulfur Adsorption and Sulfidation of Transition Metal Carbides as Hydrotreating Catalysts", P. Liu, J.A. Rodriguez and J.T. Muckerman, *J. Molecular Catal. A: Chemical*, 239 (2005) 116-124.
231. "The Chemisorption of SO₂ on the Cu/Au(111) Surface: Interplay between Ensemble and Electronic Effects", X. Zhao, P. Liu, J. Hrbek, J.A. Rodriguez and M. Pérez, *Surf. Sci.* 592 (2005) 25-36.
232. "Catalysis for Hydrogen Evolution from the [NiFe] Hydrogenase to the Ni₂P(001) Surface: The Importance of Ensemble Effect", P. Liu and J.A. Rodriguez, *J. Am. Chem. Soc.* 127 (2005) 14871-14878.
233. "Reaction of SO₂ with Au/CeO₂(111): Importance of O Vacancies in the Activation of Gold", J.A. Rodriguez, M. Pérez, J. Evans, G. Liu and J. Hrbek, *J. Chem. Phys.* 122 (2005) 241101-1,4.
234. "Interaction of Oxygen with ZrC(001) and VC(001): Photoemission and First-Principles Studies", J.A. Rodriguez, P. Liu, J. Gomes, K. Nakamura, F. Viñes, C. Sousa, and F. Illas, *Phys. Rev. B*, 72 (2005) 075427-1,11.
235. "XANES/EXAFS Study and Catalytic Properties of the Confined Cr Carbonyl-MCM-41 System", F.G. Requejo, J.M. Ramallo-Lopez, R. Rosas-Salas, J.M. Dominguez, J.A. Rodriguez, J.-Y. Kim and R. Quijada, *Catal. Today*, 107-108 (2005) 750-758.
236. "*In-situ* Time-Resolved Characterization of Au-CeO₂ and AuO_x-CeO₂ Catalysts during the Water-Gas Shift Reaction: Presence of Au and O Vacancies in the Active Phase", X. Wang, J.A. Rodriguez, J.C. Hanson, M. Pérez and J. Evans, *J. Chem. Phys.* 123 (2005) 221101-1,5.
237. "Ca Doping of Nanosize Ce-Zr and Ce-Tb Solid Solutions: Structural and Electronic Effects", M. Fernández-García, X. Wang, C. Belver, A. Iglesias-Juez, J.C. Hanson and J.A. Rodriguez, *Chemistry of Materials*, 17 (2005) 4181-4193.
238. "Reaction of SO₂ with Cu/TiO₂(110): Effects of Size and Metal-Oxide Interactions in the Chemical Activation of Cu Nanoparticles", X. Zhao, J. Hrbek, J.A. Rodriguez and M. Pérez, *Surface Science*, 600 (2006) 229-239.
239. "*In-situ* Studies of the Active Sites for the Water Gas Shift Reaction over Cu-CeO₂ Catalysts: Complex Interaction between Metallic Copper and Oxygen Vacancies on Ceria", X. Wang, J.A. Rodriguez, J.C. Hanson, D. Gamarra, A. Martinez-Arias and M. Fernández-García, *J. Phys. Chem. B*, 110 (2006) 428-434.
240. "The Chemical Properties of Bimetallic Surfaces: Importance of Ensemble and Electronic Effects in the Adsorption of Sulfur and SO₂", J.A. Rodriguez, *Progress in Surface Science*, 81 (2006) 141-189 (**invited**).

241. "Gas-Phase Interaction of Thiophene with the $Ti_8C_{12}^+$ and Ti_8C_{12} Met-Car Clusters", P. Liu, J.L. Lightstone, M.J. Patterson, J.A. Rodriguez, J.T. Muckerman, and M.G. White, *J. Phys. Chem. B*, 110 (2006) 7449-7455.
242. "Photoemission Study of Glycine Adsorption on Cu/Au(111) Interfaces", X. Zhao and J.A. Rodriguez, *Surface Science*, 600 (2006) 2113-2121.
243. "Comparative Study of Redox Properties of Nanosized CeO_2 and CuO/CeO_2 under CO/O_2 ", A. Martinez-Arias, D. Gamarra, M. Fernández-García, X.Q. Wang, J.C. Hanson and J.A. Rodriguez, *J. Catal.* 240 (2006) 1-7.
244. "N Doping of $TiO_2(110)$: Photoemission and Density-Functional Studies", A. Nambu, J. Graciani, J.A. Rodriguez, Q. Wu, E. Fujita, and J. Fdez Sanz, *J. Chem. Phys.* 125 (2006) 094706-1,8.
245. "Water-Gas-Shift Reaction in Molybdenum Carbide Surfaces: Essential Role of the Oxycarbide", P. Liu and J. A. Rodriguez, *J. Phys. Chem. B*, 110 (2006) 19418-19425.
246. "*In-situ* Characterization of Heterogeneous Catalysts using Time-resolved X-ray Diffraction", J.A. Rodriguez and J.C. Hanson, *Ciencia*, 14 (2006) 177-188 (**invited**).
247. "A DFT Study of the Dissociation of H_2 on Gold Clusters: Importance of Fluxionality and Ensemble Effects", L. Barrio, P. Liu , J. A. Rodríguez , J. M. Campos-Martín, and J.L.G. Fierro, *J. Chem. Phys.* 125 (2006) 164715-1,5.
248. "*In situ* Time-resolved Characterization of Novel $Cu-MoO_2$ Catalysts during the Water-Gas Shift Reaction", W. Wen, L. Jing, M. G. White, N. Marinkovic, J.C. Hanson, and J. A. Rodriguez, *Catalysis Letters*, 113 (2007) 1-6.
249. "Anatase- TiO_2 Nanomaterials: Morphological/Size Dependence of the Crystallization and Phase Behavior Phenomena", M. Fernández-García, X. Wang, C. Belver, J.C. Hanson, and J.A. Rodriguez, *J. Phys. Chem. C*, 111 (2007) 674-682.
250. "Unraveling the Origin of the High Catalytic Activity of Supported Au: A DFT-based Interpretation", N. Cruz Hernandez, J. Fdez Sanz and J.A. Rodriguez, *J. Am. Chem. Soc.*, 128 (2006) 15600-15601.
251. "Density Functional study of the adsorption of atomic oxygen on the (001) surface of early transition metal carbides", F. Viñes, C. Sousa, F. Illas, P. Liu and J. A. Rodriguez, *J. Phys. Chem. C*, 111 (2007) 1307-1314.
252. "Water-Gas Shift Reaction on Cu and Au Nanoparticles Supported on $CeO_2(111)$ and $ZnO(000\bar{1})$: Intrinsic Activity and Importance of Support Interactions", J.A. Rodriguez, P. Liu, J. Hrbek, J. Evans and M. Pérez, *Angew. Chem. Intl. Ed.*, 46 (2007) 1329-1332 .

253. "Reaction of NH₃ with TiO₂: N-doping and the formation of TiN", H. Chen, A. Nambu, J. Graciani, J.C. Hanson, E. Fujita and J.A. Rodriguez, *J. Phys. Chem. C*, 111 (2007) 1366-1372.
254. "Are the surfaces of CrO₂ metallic?", C.A. Ventrice, D. R. Borst, H. Geisler, J. van Ek, Y.B. Losovyy, P.S. Robbert, U. Diebold, J.A. Rodriguez, G.X. Miao and A. Gupta, *J. Physics: Condensed Matter*, 19 (2007) 315207 (18pp).
255. "Gold Nanoparticles on Ceria: Importance of O vacancies in the Activation of Gold", J.A. Rodriguez, X. Wang, P. Liu, W. Wen, J.C. Hanson, J. Hrbek, M. Pérez, and J. Evans, *Topics in Catalysis*, 44 (2007) 73-81.
256. "Sequential Transformations in Assemblies based on Octamolybdate Clusters and 1,2-bis(4-pyridyl)ethane", R. Atencio, A. Briceño, P. Silva, J.A. Rodriguez and J.C. Hanson, *New J. Chem.* 31 (2007) 33-38.
257. "STM and XPS Study of Growth of Ce on Au(111)", S. Ma, X. Zhao, J.A. Rodriguez, and J. Hrbek, *J. Phys. Chem. C*, 111 (2007) 3685-3691.
258. "Interaction of oxygen with TiN(001): N↔O exchange and oxidation process", J. Graciani, J. Fdez. Sanz, T. Asaki, K. Nakamura, and J. A. Rodriguez, *J. Chem. Phys.*, 126 (2007) 244713-1,8.
259. "Reaction of Water with Ce-Au(111) and CeO_x/Au(111) Surfaces: Photoemission and STM studies", X. Zhao, S. Ma, J. Hrbek and J. A. Rodriguez, *Surf. Sci.*, 601 (2007) 2445-2452.
260. "Water-Gas Shift Reaction on Metal Nanoparticles and Surfaces", P. Liu and J.A. Rodriguez, *J. Chem. Phys.* 126 (2007) 164705-1,8
261. "Effects of Hydrogen on the Reactivity of O₂ towards Gold Nanoparticles and Surfaces", L. Barrio, P. Liu, J. A. Rodriguez, J. M. Campos-Martin, and J. L.G. Fierro, *J. Phys. Chem. C*, 111 (2007) 19001-19008.
262. "Water-Gas Shift Activity of Au and Cu Nanoparticles supported on Molybdenum Oxides", J. A. Rodriguez, P. Liu, J. Hrbek , M. Pérez and J. Evans, *J. Molecular Catal. A*, 281 (2008) 59-65.
263. "A Systematic Density Functional Study of Molecular Oxygen Adsorption and Dissociation on the (001) Surface of Group IV-VI Transition Metal Carbides", F. Viñes, C. Sousa, F. Illas, P. Liu and J.A. Rodriguez, *J. Phys. Chem. C*, 111 (2007) 16982-16989.

264. "Structure-Activity Relationships in Nanostructured Catalysts Copper-Ceria Based Preferential CO Oxidation Catalysts", D. Gamarra, G. Munuera, A.B. Hungria, M. Fernandez-Garcia, J. Conesa, P.A. Midgley, X. Wang, J.C. Hanson, J.A. Rodriguez, and A. Martinez-Arias, *J. Phys. Chem. C*, 111 (2007) 11026-11038.
265. "Anatase-TiO₂ Nanomaterials: Analysis of Key Parameters Controlling Crystallization", M. Fernández-García, C. Belver, J.C. Hanson, X. Wang, and J.A. Rodriguez, *J. Am. Chem. Soc.* 129 (2007) 13604-13612.
266. "Adsorption of gold on TiC(001): Au-C interactions and charge polarization", J.A. Rodriguez, F. Viñes, F. Illas, P. Liu, Y. Takahashi and K. Nakamura, *J. Chem. Phys.* 127 (2007) 211102-1,4.
267. "Activity of CeO_x and TiO_x Nanoparticles Grown on Au(111) in the Water-Gas Shift Reaction", J.A. Rodriguez, S. Ma, P. Liu, J. Hrbek, J. Evans and M. Perez, *Science*, 318 (2007) 1757-1760.
268. "Proline Adsorption on TiO₂(110) Single Crystal Surface: A Study by High Resolution Photoelectron Spectroscopy", G.J. Fleming, K. Adib, J.A. Rodriguez, M.A. Barteau, and H. Idriss, *Surf. Sci.* 601 (2007) 5726-5731.
269. "N doping of Rutile TiO₂(110) Surface: A Theoretical DFT Study", J. Graciani, L.J. Alvarez, J.A. Rodriguez, and J. Fdez-Sanz, *J. Phys. Chem. C*, 112 (2008) 2624-2631.
270. "Formation of Pd/Au Nanostructures from Pd Nanowires via Galvanic Replacement Reaction", X. Teng, Q. Wang, P. Liu, W.-Q. Han, A. Frenkel, W. Wen, N. Marinkovic, J.C. Hanson and J.A. Rodriguez, *J. Am. Chem. Soc.* 130 (2008) 1093-1101.
271. "*In-situ* Time-resolved Characterization of Ni-MoO₂ Catalysts for the Water-Gas Shift Reaction", W. Wen, J.E. Calderon, J.L. Brito, N. Marinkovic, J.C. Hanson, and J.A. Rodriguez, *J. Phys. Chem. C*, 112 (2008) 2121-2128.
272. "Dissociation of SO₂ on Au/TiC(001): Effects of Au-C Interactions and Charge Polarization", J.A. Rodriguez, P. Liu, F. Viñes, F. Illas, Y. Takahashi, and K. Nakamura, *Angew. Chem. Intl. Ed.* 47 (2008) 6685-6689.
273. "Au↔N Synergy and N-Doping of Metal Oxide-Based Photocatalysts", J. Graciani, A. Nambu, J. Evans, J.A. Rodriguez and J. Fernandez-Sanz, *J. Am. Chem. Soc.* 130 (2008) 12056-12063.
274. "Ceria-based Catalysts for the Production of H₂ through the Water-Gas Shift Reaction: Time-resolved XRD and XAFS Studies", X. Wang, J.A. Rodriguez, J.C. Hanson, D. Gamarra, A. Martinez-Arias, and M. Fernandez-García, *Top. Catal.* 49 (2008) 81-88.

275. "STM Study of the Growth of Cerium Oxide Nanoparticles on Au(111)", S. Ma, J.A. Rodriguez, and J. Hrbek, *Surf. Sci.* 602 (2008) 3272-3278.
276. "Catalysts Size Matters: Tuning the Molecular Mechanism of the Water-Gas Shift Reaction on Titanium Carbide Based Compounds", F. Viñes, J.A. Rodriguez, P. Liu, and F. Illas, *J. Catal.* 260 (2008) 103-112.
277. "Synthesis, Characterization, and Photodegradation Behavior of Single-Phase Anatase TiO₂ Materials Synthesized from Ti-Oxychloride Precursors", G. Colon, P. Sampedro, M. Fernandez-García, H. Chen, J.C. Hanson, and J.A. Rodriguez, *Langmuir*, 24 (2008) 11111-11118.
278. "Water-Gas Shift Activity of Cu Surfaces and Cu Nanoparticles Supported on Metal Oxides", J.A. Rodriguez, P. Liu, X. Wang, W. Wen, J.C. Hanson, J. Hrbek, M. Pérez and J. Evans, *Catal. Today*, 143 (2009) 45-50.
279. "Water-gas-shift reaction on a Ni₂P(001) catalyst: Formation of oxy-phosphides and highly active reaction sites", P. Liu, J.A. Rodriguez, Y. Takahashi, and K. Nakamura, *J. Catal.*, 262 (2009) 294-303.
280. "Preparation of (Ga_{1-x}Zn_x)(N_{1-x}O_x) Photocatalysts from the Reaction of NH₃ with Ga₂O₃/ZnO and ZnGa₂O₄: In-situ Time-Resolved XRD and XAFS Studies", H. Chen, W. Wen, Q. Wang, J. C. Hanson, J. T. Muckerman, E. Fujita, A. I. Frenkel, and J. A. Rodriguez, *J. Phys. Chem. C*, 113 (2009) 3650-3659.
281. "*In-situ* Characterization of Water-Gas Shift Catalysts using Time-resolved X-ray Diffraction", J.A. Rodriguez, J.C. Hanson, W. Wen, and X. Wang, *Catal. Today*, 145 (2009) 188-194 (**invited**).
282. "Methanethiol Chemistry on TiO₂-supported Ni Clusters", O. Ozturk, J.B. Park, T.J. Black, J.A. Rodriguez, J. Hrbek and D.A. Chen, *Surf. Sci.* 602 (2008) 3077-3088.
283. "High Water-Gas Shift Activity in TiO₂(110) supported Cu and Au Nanoparticles: Role of the Oxide and Metal Particle Size", J. Rodriguez, J. Evans, J. Graciani, J.-B. Park, P. Liu, J. Hrbek, and J. Fernandez-Sanz, *J. Phys. Chem. C*, 113 (2009) 7364-7370.
284. "Adsorbate-driven Morphological Changes of a Gold Surface at Low Temperatures". J. Hrbek, F.M. Hoffmann, J.B. Park, P. Liu, D. Stacchiola, Y.S. Hoo, S. Ma, A. Nambu, J.A. Rodriguez, and M.G. White, *J. Am. Chem. Soc.* 130 (2008) 17272-17273.
285. "Theoretical Studies in Heterogeneous Catalysis: Towards a Rational Design of Novel Catalysts for Hydrodesulfurization and Hydrogen Production", J.A. Rodriguez and P. Liu, in *New Developments in Quantum Chemistry*, Transworld Research Network (2008), **invited book chapter**.

286. "High Catalytic Activity of Au/CeO_x/TiO₂(110) Controlled by the Nature of the Mixed-Metal Oxide at the Nanometer Level", J.B. Park, J. Graciani, J. Evans, D. Stacchiola, S. Ma, P. Liu, A. Nambu, J. Fernandez-Sanz, J. Hrbek, and J.A. Rodriguez, *Proceedings of the National Academy of Science (PNAS)*, 106 (2009) 4975-4980.
287. "Adsorption and Diffusion of Au Atoms on the (001) Surface of Ti, Zr, Hf, V, Nb, Ta, and Mo Carbides", E. Florez, F. Viñes, J.A. Rodriguez, and F. Illas, *J. Chem. Phys.* 130 (2009) 2444706-1,7.
288. "*In-situ* Characterization of CuFe₂O₄ and Cu/Fe₃O₄ Water-Gas Shift Catalysts", M. Estrella, L. Barrio, G. Zhou, X. Wang, Q. Wang, W. Wen, J.C. Hanson, A.I. Frenkel, and J.A. Rodriguez, *J. Phys. Chem. B*, 113 (2009) 14411.
289. "Desulfurization of Thiophene on Au/TiC(001): Au-C Interactions and Charge Polarization", J.A. Rodriguez, P. Liu, Y. Takahashi, K. Nakamura, F. Viñes, and F. Illas, *J. Am. Chem. Soc.* 131 (2009) 8592-8602.
290. "Destruction of SO₂ on Au and Cu Nanoparticles Dispersed on MgO(100) and CeO₂(111)", J.A. Rodriguez, P. Liu, M. Pérez, G. Liu, and J. Hrbek, *J. Phys. Chem. A*, 114 (2010) 3802-3810.
291. "Effect of the Support on the Electronic Structure of Au Nanoparticles Supported on Transition Metal Carbides: Choice of the best substrate for Au activation", E. Florez, L. Feria, F. Viñes, J.A. Rodriguez, and F. Illas, *J. Phys. Chem. C*, 113 (2009) 19994-20001.
292. "Water-Gas Shift Reaction on a Highly Active Inverse CeO_x/Cu(111) Catalyst: Unique Role of Ceria Nanoparticles", J.A. Rodriguez, J. Graciani, J. Evans, J.B. Park, F. Yang, D. Stacchiola, S.D. Senanayake, S. Ma, M. Perez, P. Liu, J.F. Sanz, and J. Hrbek, *Angew. Chem. Int. Ed.*, 48 (2009) 8047.
293. "Desulfurization Reactions on Surfaces of Metal Carbides: Photoemission and Density-Functional Studies", J.A. Rodriguez, P. Liu, Y. Takahashi, K. Nakamura, F. Viñes, and F. Illas, *Topics in Catalysis*, 53 (2010) 393-402 (**invited article**).
294. "The Interaction of CO with OH on Au(111): HCOO, CO₃ and HOCO as Key Intermediates in the Water-Gas Shift Reaction", S.D. Senanayake, D. Stacchiola, P. Liu, B.C. Mullins, J. Hrbek, and J.A. Rodriguez, *J. Phys. Chem. C*, 113 (2009) 19536-19544.
295. "Role of C and P Sites on the Chemical Activity of Metal Carbides and Phosphides: From Clusters to Single-Crystal Surfaces", J.A. Rodriguez, F. Viñes, P. Liu and F. Illas, *Model Systems in Catalysis*, R. Rioux (Editor), Springer: Berlin, 2009 (**invited**).
296. "A Comparative Study of the Water Gas Shift Reaction over Platinum Catalysts Supported on CeO₂, TiO₂ and Ce-modified TiO₂", I.D. Gonzalez, R.M. Navarro, W. Wen, N. Marinkovic, J.A. Rodriguez, F. Rosa, J.L.G. Fierro, *Catal. Today*, 149 (2010) 372-379.

297. “*In Situ* XRD Studies of ZnO/GaN Mixtures at High Pressure and High Temperature: Synthesis of Zn-rich $(\text{Ga}_{1-x}\text{Zn}_x)(\text{N}_{1-x}\text{O}_x)$ Photocatalysts”, H. Chen, L. Wang, J. Bai, J.C. Hanson, J.B. Warren, J.T. Muckerman, E. Fujita, and J.A. Rodriguez, *J. Phys. Chem. C*, 114 (2010) 1809-1814.
298. “Inverse Oxide/Metal Catalysts: A Versatile Approach for Activity Tests and Mechanistic Studies”, J.A. Rodriguez and J. Hrbek, *Surf. Sci.* 604 (2010) 241-244 (**invited**).
299. “Inverse CeO_2/CuO Catalyst as an Alternative to Classical Direct Configurations for Preferential Oxidation of CO in Hydrogen-rich Stream”, A. Hornés, A.B. Hungría, P. Bera, A. López Cámara, M. Fernández-García, A. Martínez-Arias, L. Barrio, M. Estrella, G. Zhou, J.J. Fonseca, J.C. Hanson, and J.A. Rodríguez, *J. Am. Chem. Soc.* 132 (2010) 34-35.
300. “Theoretical Analysis of the Adsorption of Late Transition Metal Atoms on the (001) Surface of Early Transition Metal Carbides”, T. Gómez, E. Florez, J.A. Rodriguez and F. Illas, *J. Phys. Chem. C*, 114 (2010) 1622-1626.
301. “Gold, Copper and Platinum Nanoparticles dispersed on $\text{CeO}_x/\text{TiO}_2(110)$ Surfaces: High Water-Gas Shift Activity and the Nature of the Mixed-Metal Oxide at the Nanometer Level”, J.B. Park, J. Graciani, J. Evans, D. Stacchiola, S.D. Senanayake, L. Barrio, P. Liu, J.F. Sanz, J. Hrbek, and J.A. Rodriguez, *J. Am. Chem. Soc.*, 132 (2010) 356-363.
302. “Probing the Reaction Intermediates for the Water-Gas Shift over Inverse $\text{CeO}_x/\text{Au}(111)$ Catalysts”, S.D. Senanayake, D. Stacchiola, J. Evans, M. Estrella, L. Barrio, M. Pérez, J. Hrbek, and J.A. Rodriguez, *J. Catal.* 271 (2010) 392-400.
303. “Role of Au-C interactions on the catalytic activity of Au nanoparticles supported on $\text{TiC}(001)$ towards molecular oxygen dissociation”, J.A. Rodríguez, L. Feria, T. Jirsak, Y. Takahashi, K. Nakamura, and F. Illas, *J. Am. Chem. Soc.* 132 (2010) 3177-3186.
304. “A Theoretical Insight into the Catalytic Effect of a Mixed-Metal Oxide at the Nanometer Level: The Case of the Highly Active Metal/ $\text{CeO}_x/\text{TiO}_2(110)$ Catalysts”, J. Graciani, J.J. Plata, J.F. Sanz, P. Liu and J.A. Rodriguez, *J. Chem. Phys.* 132 (2010) 104703-1,8.
305. “Novel Au-TiC Catalysts for CO Oxidation and Desulfurization Processes”, J.A. Rodriguez, P. Liu, Y. Takahashi, F. Viñes, L. Feria, E. Florez, K. Nakamura, and F. Illas, *Catal. Today*, 166 (2011) 2-9.
306. “Catalysis and the Nature of Mixed-Metal Oxides at the Nanometer Level: Special Properties of $\text{MO}_x/\text{TiO}_2(110)$ {M=V, W, Ce} Surfaces”, J.A. Rodriguez and D. Stacchiola, *Phys. Chem. Chem. Phys.*, 12 (2010) 9557-9565 (**invited**).
307. “Fundamental studies of Methanol Synthesis from CO_2 Hydrogenation on $\text{Cu}(111)$, Cu Clusters, and $\text{Cu}/\text{ZnO}(000\bar{1})$ ”, Y. Yang, J. Evans, J.A. Rodriguez, M.G. White, and P. Liu, *Phys. Chem. Chem. Phys.*, 12 (2010) 9909-9917.

308. "Unusual Physical and Chemical Properties of Ni in $\text{Ce}_{1-x}\text{Ni}_x\text{O}_{2-y}$ Oxides: Structural Characterization and Catalytic Activity for the Water Gas Shift Reaction", L. Barrio, A. Kubacka, G. Zhou, M. Estrella, A. Martinez-Arias, J. C. Hanson, M. Fernandez-Garcia, and J. A. Rodriguez, *J. Phys. Chem. C*, 114 (2010) 12689-12697.
309. "Hydrogen Reactions on Au/TiC(001): Effects of Au-C Interactions on the Dissociation of H_2 ", E. Florez, T. Gomez, P. Liu, J.A. Rodriguez, and F. Illas, *Chem. Catal. Chem.* 2 (2010) 1-4.
310. "Autocatalytic Reduction of a $\text{Cu}_2\text{O}/\text{Cu}(111)$ Surface by CO: STM, XPS and DFT Studies", F. Yang, Y.-M. Choi, P. Liu, J. Hrbek, and J.A. Rodriguez, *J. Phys. Chem. C*, 114 (2010) 17042-17050.
311. "High Activity of $\text{Ce}_{1-x}\text{Ni}_x\text{O}_{2-y}$ for H_2 Production through Ethanol Steam Reforming: Tuning Catalytic Performance through Metal↔Oxide Interactions", G. Zhou, L. Barrio, S. Agnoli, S.D. Senanayake, J. Evans, A. Kubacka, M. Estrella, J.C. Hanson, A. Martínez-Arias, M. Fernández-García, and J.A. Rodriguez, *Angew. Chem. Int. Ed.* 49 (2010) 9680-9684.
312. "Unraveling the Active Site in Copper–Ceria Systems for the Water–Gas Shift Reaction: In Situ Characterization of an Inverse Powder $\text{CeO}_{2-x}/\text{CuO–Cu}$ Catalyst", L. Barrio, M. Estrella, G. Zhou, W. Wen, J.C. Hanson, A. B. Hungría, A. Hornés, M. Fernández-García, A. Martínez-Arias and J. A. Rodriguez, *J. Phys. Chem.C*, 114 (2010) 3580-3587.
313. "Reactivity of transition metals (Pd, Pt, Cu, Ag, Au) towards molecular hydrogen dissociation: extended surfaces versus particles supported on TiC(001) or small is not always better and large is not always bad", T. Gomez, E. Florez, J. A. Rodriguez and F. Illas, *J. Phys. Chem. C*, 115 (2011) 11666-11672
314. "CO Oxidation on Inverse $\text{CeO}_x/\text{Cu}(111)$ Catalysts: High Catalytic Activity and Ceria-Promoted Dissociation of O_2 ", F. Yang, J. Graciani, J. Evans, P. Liu, J. Hrbek, J. Fdez. Sanz, and J.A. Rodriguez, *J. Am. Chem. Soc.* 133 (2011) 3444-3451.
315. "Interaction of SO_2 with Cu/TiC(001) and Au/TiC(001): Towards a New Family of DeSOx Catalysts", L. Feria, J. A. Rodriguez, T. Jirsak, F. Illas, *J. Catal.*, 279 (2011) 352-360.
316. "Water-Gas Shift and CO Methanation Reactions over Ni- $\text{CeO}_2(111)$ Catalysts", S.D. Senanayake, J. Evans, S. Agnoli, L. Barrio, T.-L. Chen, J. Hrbek and J.A. Rodriguez, *Topics in Catal.* 54 (2011) 34-41.
317. "Identification of 5-7 Defects in a Copper Oxide Surface", F.Yang, Y.M. Choi, P. Liu, D. Stacchiola, J. Hrbek and J.A. Rodriguez, *J. Am. Chem. Soc.* 133 (2011) 11474-11477.
318. "On the Dissociation of Molecular Hydrogen by Au Supported on Transition Metal Carbides: Choice of the Most Active Support", E. Florez, T. Gomez, J. A. Rodriguez, and F. Illas, *Phys. Chem. Chem. Phys.*, 13 (2011) 6865-6871.

319. "Morphological and Structural Changes during the Reduction and Reoxidation of CuO/CeO₂ and Ce_{1-x}Cu_xO₂ Nanocatalysts: *In-situ* Studies with Environmental TEM, XRD and XAS", J. Ciston, R. Si, J.A. Rodriguez, J.C. Hanson, A. Martínez-Arias, M. Fernandez-García, and Y. Zhu, *J. Phys. Chem. C*, 115 (2011) 13851-13859.
320. "Combining X-ray Absorption and X-ray Diffraction Techniques for in Situ Studies of Chemical Transformations in Heterogeneous Catalysis: Advantages and Limitations", A. Frenkel, Q. Wang, N. Marinkovic, J.G. Chen, L. Barrio, R. Si, A. Lopez-Camara, A.M. Estrella, J.A. Rodriguez and J.C. Hanson, *J. Phys. Chem. C*, 115 (2011) 17884-17890.
321. "Unravelling the Behaviour of RuO_x nanoparticles in Mixed-Metal Oxides: Special Structural and Catalytic Properties of RuO₂/TiO₂(110) Surfaces", F. Yang, S. Kundu, A.B. Vidal, P.J. Ramírez, S.D. Senanayake, D. Stacchiola, J. Evans, P. Liu and J.A. Rodriguez, *Angew. Chem. Int. Ed.*, 50 (2011) 10198-10202.
322. "Theoretical study of the interaction of CO on TiC(001) and Au nanoparticles supported on TiC(001): probing the nature of the Au/TiC interface", G.G. Asara, L. Feria, E. Florez, J. M. Ricart, P. Liu, J. A. Rodriguez, and F. Illas, *J. Phys. Chem. C*, 115 (2011) 22495-22504.
323. "CeO₂↔CuO_x Interactions and the Controlled Assembly of CeO₂(111) and CeO₂(100) Nanoparticles on an Oxidized Cu(111) Substrate", F.Yang, Y.M. Choi, S. Agnoli, P. Liu, D. Stacchiola, J. Hrbek and J.A. Rodriguez, *J. Phys. Chem. C*, 115 (2011) 23062-23066.
324. "Theoretical Study of the Interaction of CO on TiC(001) and Au Nanoparticles Supported on TiC(001): Probing the Nature of the Au/TiC Interface", G. G. Asara, L. Feria, E. Florez, J. M. Ricart, P. Liu, J. A. Rodriguez, and F. Illas, *J. Phys. Chem. C*, 115 (2011) 22495-22504
325. "*In situ* characterization of Pt catalysts supported on ceria modified TiO₂ for the WGS reaction: influence of ceria loading on catalytic behavior", L. Barrio, G. Zhou, I. D. González, M. Estrella, J. Hanson, J. A. Rodriguez, R. M. Navarro and J. L. G. Fierro, *Phys. Chem. Chem. Phys.*, 14 (2012) 2192-2202.
326. "Activation of Noble Metals on Metal-Carbide Surfaces: Novel Catalysts for CO Oxidation, Desulfurization and Hydrogenation Reactions", J. A. Rodriguez and F. Illas, *Phys. Chem. Chem. Phys., (invited)* 14 (2012) 427-428.
327. "Gold-based Catalysts for the Water-gas Shift Reaction: Active Sites and Reaction Mechanism", J.A. Rodriguez, *Catal. Today*, 160 (2011) 3-10.
328. "Supported Gold in CO Oxidation, the Water-gas Shift, and DeSOx Reactions", J.A. Rodriguez, book chapter for *Supported Metals in Catalysis*, 2nd Edition (Editors: James Anderson and Marcos Fernandez-Garcia), Imperial College Press, London, 2012 (**invited book chapter**).

329. “Special Chemical Properties of RuO_x Nanowires in RuO_x/TiO₂(110): Dissociation of Water and Hydrogen Production”, S. Kundu, A.B. Vidal, F. Yang, P. J. Ramírez, S. D. Senanayake, D. Stacchiola, J. Evans, P. Liu, and J.A. Rodriguez, *J. Phys. Chem. C*, 116 (2012) 4767–4773.
330. “Nanopatterning in CeO_x/Cu(111): A New Mechanism for Surface Reconstruction and Enhancement of Catalytic Activity”, S. D. Senanayake¹, J. Sadowski, Jaime Evans, S. Kundu, S. Agnoli, F. Yang, D. Stacchiola, J.I. Flege, J. Hrbek, and J.A. Rodriguez, *J. Phys. Chem. Letters*, 3 (2012) 839-843.
331. “A New Type of Strong Metal-Support Interaction and the Production of H₂ through the Transformation of Water on Pt/CeO₂(111) and Pt/CeO_x/TiO₂(110) Catalysts”, A. Bruix, J.A. Rodriguez, P.J. Ramirez, S.D. Senanayake, J. Evans, J.B. Park, D. Stacchiola, P. Liu, J. Hrbek, and F. Illas, *J. Am. Chem. Soc.* 134 (2012) 8968-8974.
332. “*In situ* Studies of CeO₂-supported Pt, Ru, and Pt–Ru Alloy Catalysts for the Water–gas Shift Reaction: Active Phases and Reaction Intermediates”, W. Xu, R. Si, S. D. Senanayake, J. Llorca, H. Idriss, D. Stacchiola, J. C. Hanson, J. A. Rodriguez, *J. Catal.* 291 (2012) 117-126.
333. “Exploring the Structural and Electronic Properties of Pt/Ceria-modified TiO₂ and its Photocatalytic Activity for Water Splitting under Visible Light”, S. Kundu, J. Ciston, S.D. Senanayake, D.A. Arena, E. Fujita, D. Stacchiola, L. Barrio, R.M. Navarro, J.L.G. Fierro, and J.A. Rodriguez, *J. Phys. Chem. C*, 116 (2012) 14062–14070.
334. “CO₂ Activation and Methanol Synthesis on Novel Cu/TiC and Au/TiC Catalysts”, A.B. Vidal, L. Feria, J. Evans, Y. Takahashi, P. Liu, K. Nakamura, F. Illas, and J.A. Rodriguez, *J. Phys. Chem. Lett.*, 3 (2012) 2275-2280.
335. “Tungsten as an Interface Agent Leading to Highly Active and Stable Cu-Ce Water Gas Shift Catalyst”, A. Kubacka, R. Si, P. Michorczyk, A. Martínez-Arias, W. Xu, J. C. Hanson, J. A. Rodriguez, and M. Fernández-García, *Applied Catal. B : Environmental*, 132/133 (2012) 423-432.
336. “CO Oxidation on Inverse Fe₂O₃/Au(111) Model Catalysts”, Ting Yan, D. W. Redman, W.-Y. Yu, D. W. Flaherty, J. A. Rodriguez, and C. B. Mullins, *J. Catal.* 294 (2012) 216-222.
337. “*Operando* Characterization of Iron-promoted Ceria-alumina Gold Catalysts during the Water-gas Shift Reaction”, T. Ramírez Reina, W. Xu, S. Ivanova, M.A. Centeno, J. Hanson, J. A. Rodriguez, and J. A. Odriozola, *Catal. Today*, 205 (2013) 41- 48.
338. “Goals and Challenges for the *In-situ* Characterization of Heterogeneous Catalysts”, J.A. Rodriguez, J.C. Hanson and P.J. Chupas, in: *In-situ Characterization of Heterogeneous Catalysts*, Editors: J.A. Rodriguez, J.C. Hanson and P.J. Chupas; Wiley: New York, 2013.

339. "Unique Properties of Ceria Nanoparticles Supported on Metals: Novel Inverse Ceria/Copper catalysts for CO Oxidation and the Water-Gas Shift Reaction", S. D. Senanayake, D. Stacchiola, and Jose A. Rodriguez, Accounts of Chemical Research, invited (2013) (**invited**).
340. "Active Sites of Gold-Ceria Nanorods for Low-Temperature CO Oxidation Reaction: *Operando* X-Ray Diffraction and X-Ray Absorption Studies", R. Si, W. Xu, J. A. Rodriguez, J. C. Hanson, J. Tao, and Y. Zhu, Catal. Today, submitted (2012).
341. "*In-situ/Operando* Studies for the Production of Hydrogen through the Water-Gas Shift on Metal Oxide/Catalysts", J.A. Rodriguez, J. C. Hanson, D. Stacchiola and S. Senanayake, Phys. Chem. Chem. Phys. 15 (2013) 12004-12025 (**invited**).
342. "Synchrotron Techniques for *In-situ* Catalytic Studies: Capabilities, Challenges and Opportunities", A. I. Frenkel, J. A. Rodriguez, and J. G. Chen, ACS Catalysis, 2 (2012) 2269-2280 (**invited**).
343. "Fundamental studies of well-defined surfaces of mixed-metal oxides: Special properties of $\text{MO}_x/\text{TiO}_2(110)$ {M= V, Ru, Ce or W}", D. J. Stacchiola, S. Senanayake, P. Liu and J. A. Rodriguez, Chemical Reviews, 113 (2013) 4373-4390 (**invited**).
344. "Effect of Ceria on Gold-Titania Catalysts for the Water-Gas Shift Reaction: Fundamental Studies for $\text{Au}/\text{CeO}_x/\text{TiO}_2(110)$ and $\text{Au}/\text{CeO}_x/\text{TiO}_2$ Powders", R. Si, J. Tao, J. Evans, J. B. Park, L. Barrio , J. C. Hanson, Y. Zhu, J. Hrbek and J.A. Rodriguez, J. Phys. Chem. C, 116 (2012) 23547-23555
345. "Unraveling the nature of the oxide-metal interaction in ceria-based noble metal inverse catalysts", J. Graciani, A. Vidal, J. A. Rodriguez and J. Fdez. Sanz, J. Phys. Chem. C, submitted (2012).
346. "Nature of the Mixed-Oxide Interface in Ceria–Titania Catalysts: Clusters, Chains, and Nanoparticles", A.C. Johnston-Peck, S. D. Senanayake, J.J. Plata, S. Kundu, W. Xu, L. Barrio, J. Graciani, J. Fdez. Sanz, R.M. Navarro, J.L.G. Fierro, E. A. Stach, and J. A. Rodriguez, J. Phys. Chem. C, in press (2013).
347. "Theoretical studies for the adsorption of CO and C on Ni(111) and Ni/CeO₂(111): Evidence for a strong metal-support interaction", J. Carrasco, L. Barrio , P. Liu, J.A. Rodriguez, and M.V. Ganduglia-Pirovano, J. Phys. Chem. C, 117 (2012) 8241-8247.
348. "Characterization of Metal-Oxide Catalysts in Operando Conditions by Combining X-Ray Absorption and Raman Spectroscopies in the Same Experiment", A. Patlolla, Ph. Baumann, W. Xu, S. D. Senanayake, J. A. Rodriguez, and A. I. Frenkel, Topics in Catal. 56 (2013) 896-904.

349. "Steam reforming of ethanol on Ni/CeO₂: Reaction pathway and interaction between Ni and the CeO₂ support", W. Xu, Z. Liu , A. Johnston-Peck, S.D. Senanayake , G. Zhou, D. Stacchiola, E. Stach and J.A. Rodriguez , ACS Catalysis, 3 (2013) 975–984.
350. "Ethanol Photo Reaction on RuO_x/Ru Modified TiO₂(110)", S. Kundu, A. Vidal, A. Nadeem, S. Senanayake, H. Idriss, P. Liu, J.A. Rodriguez and D. Stacchiola, J. Phys. Chem. C. in press (2013).
351. "Platinum-Modulated Cobalt Nanocatalysts for Low-Temperature Aqueous-Phase Fischer–Tropsch Synthesis", H. Wang, W. Zhou, J.-X. Liu, R. Si, G. Sun, M.-Q. Zhong, H.-Y. Su, H.-B. Zhao, J. A. Rodriguez, S. J. Pennycook, J. C. Idrobo, W.-X. Li, Y. Kou, and D. Ma, J. Am. Chem. Soc. 135 (2013) 4149-4158.
352. "Atomic and Electronic Structure of Molybdenum Carbide Phases: Bulk and Low Miller-Index Surfaces", J.R. dos Santos Politi, F. Viñes, J. A. Rodriguez, and F. Illas, Physical Chemistry Chemical Physics, 15 (2013) 12617-12625.
353. "Importance of the Metal–Oxide Interface in Catalysis: *In Situ* Studies of the Water–Gas Shift Reaction by Ambient-Pressure X-ray Photoelectron Spectroscopy", K. Mudiyanselage, S.D. Senanayake, L. Feria, S. Kundu, A.E. Baber, J. Graciani, A.B. Vidal, S. Agnoli, J. Evans, R. Chang, S. Axnanda, Z. Liu, J.F. Sanz, P. Liu, J.A. Rodriguez, and D.J. Stacchiola, Angew. Chem. Intl. Ed. 52 (2013) 5101-5105.
354. "Structure and Special Chemical Reactivity of Interface Stabilized Cerium Oxide Nanolayers on TiO₂(110)", S. Agnoli, A. E. Reeder, S. D. Senanayake, J. Hrbek and J.A. Rodriguez, ACS Nano, submitted (2013).
355. "CO₂ Hydrogenation on Au/TiC, Cu/TiC and Ni/TiC Catalysts: Production of CO, Methanol and Methane", J.A. Rodriguez, J. Evans, L. Feria, A. B. Vidal, P. Liu, K. Nakamura, and F. Illas, J. Catal., (2013) accepted.
356. "Electronic Metal-Support Interactions and the Production of Hydrogen through the Water-gas Shift Reaction and Ethanol Steam Reforming: Fundamental Studies with Well-defined Model Catalysts", S.D. Senanayake, J.A. Rodriguez and D. Stacchiola, Topics in Catal. (2013) accepted.
357. "The Activation of Gold and the Water-Gas Shift Reaction: Insights from Studies with Model Catalysts", J.A. Rodriguez, S.D. Senanayake, D. Stacchiola, P. Liu and J, Hrbek, Accounts of Chemical Research (2013) submitted (**invited**).